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## Trauma-Focused Cognitive Behavioral Therapy with a Teacher Component: Outcomes Examined in a School Setting

Kelly Marie Holmes

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LOYOLA UNIVERSITY CHICAGO

TRAUMA-FOCUSED COGNITIVE BEHAVIORAL THERAPY WITH A TEACHER  
COMPONENT: OUTCOMES EXAMINED IN A SCHOOL SETTING

A DISSERTATION SUBMITTED TO  
THE FACULTY OF THE GRADUATE SCHOOL  
IN CANDIDACY FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY

PROGRAM IN SCHOOL PSYCHOLOGY

BY  
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CHICAGO, IL  
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## CHAPTER ONE

### INTRODUCTION

Trauma exposure among youth is frequent and can result in long-term social-emotional, behavioral, and academic problems (Finkelhor, Turner, Hamby, & Ormrod, 2011; Kronenberg et al., 2010). Fortunately, some interventions can ameliorate these problems. Trauma-focused interventions are effective in reducing trauma-related symptomatology and difficulties among youth (Cary & McMillen, 2012). Youth receive most of their mental health services in schools (Green et al., 2013), and they spend much of their day in schools (Gelkopf & Berger, 2009); therefore, schools are an ideal venue to provide trauma-focused interventions to children and adolescents. There are numerous trauma-focused, school-based interventions that have been implemented in the school setting with documented efficacious outcomes (Rolfesnes & Idsoe, 2011). Trauma-focused cognitive behavioral therapy (TF-CBT) is a rigorously, empirically supported, evidence-based intervention for treating problems associated with trauma exposure among youth ages 3-18 years (Silverman et al., 2008). Despite the rigorous empirical support, studies examining TF-CBT in a school setting are sparse (Stevens & Michael, 2014). This study examines TF-CBT implementation and outcomes in a school setting through multiple-case study design using a mixed-methods approach. Additionally, the study examines satisfaction of the intervention by key stakeholders including administrators, teachers, parents, and students.

#### **Background of the Problem**

Trauma exposure among youth is common (Finkelhor et al., 2015). In a national survey, 61.7% of adolescents (ages 13-17 years) had experienced a potentially traumatic experience

(e.g., exposure to interpersonal violence, accidents, and witnessing violence) (McLaughlin et al., 2013). The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; *DSM-5*; American Psychiatric Association [APA], 2013) defines a traumatic event as the subjective reaction to a stressful event. Despite the prevalence of trauma exposure among youth, most youth who experience a traumatic event will be resilient and will not suffer long-term adverse outcomes associated with the exposure. However, some youth will experience social, academic, and behavioral difficulties because of exposure to a traumatic event (Mathews, Dempsey, & Overstreet, 2009; Putnam, 2006). Academic and behavioral problems associated with trauma exposure include delinquency and diminished educational and employment success (Edwards, Anda, Felitti, & Dube, 2004).

In addition to increasing accessibility of treatment for all youth (Fitzgerald & Cohen, 2012; Jaycox, Morse, Tanielian, & Stein, 2006; Wolmer, Hamiel, & Laor, 2011), school-based, trauma interventions are a useful mode of treating trauma exposure and subsequent symptomatology among youth (Cohen & Mannarino, 2008; Jaycox et al., 2010). Data from the U.S. National Comorbidity Survey Adolescents Supplement (NSC-A) revealed that nearly half of the respondents with a *DSM-5* diagnosis had received some form of mental health service in the school setting (APA, 2013; Green et al., 2013). Undoubtedly, schools are an ideal venue for providing trauma-focused mental health services to youth (Gelkopf & Berger, 2009).

TF-CBT is an evidence-based, trauma-focused intervention for children and adolescents ages 3-18 years. The intervention is designed to treat symptoms and problems associated with trauma exposure. TF-CBT is the most widely disseminated mental health intervention for youth (Cary & McMillen, 2012; Dorsey, Briggs, & Woods, 2011; Silverman et al., 2008), and the

intervention is designated as an evidence-based intervention by several registries of evidence-based practices (The California Evidence-Based Clearinghouse for Child Welfare, CEBC, 2016; National Registry of Evidence-based Programs and Practices, NREPP, TF-CBT, 2016). Several randomized control trials (RCTs) have examined outcomes associated with TF-CBT (Goldbeck, Muche, Sachser, Tutus, & Rosner, 2016). RCT studies have found positive outcomes, associated with participation in TF-CBT, for depression symptoms (Cohen & Mannarino, 1998b), posttraumatic stress (pts) symptoms (Cohen, Deblinger, Mannarino, & Steer, 2004; Jensen et al., 2014; Scheeringa, Weems, Cohen, Amaya-Jackson, & Guthrie, 2011), anxiety symptoms (Cohen et al., 2004), and externalizing symptoms (Cohen et al., 2004; O'Callaghan, McMullen, Shannon, Rafferty, & Black, 2013). Additionally, outcomes findings have been found to be maintained six months, one year, and two years post-intervention (Cohen, Mannarino, & Knudsen, 2005; Deblinger, Mannarino, Cohen, & Steer, 2006; Deblinger, Steer, & Lippmann, 1999; Scheeringa et al., 2011). Feather and Ronan (2009) and Jaycox and colleagues (2010) examined the impact of TF-CBT on student academic problems and social-emotional and behavioral problems in school, yet neither of these studies was school-based, and they did not find any significant positive outcome results associated with academic difficulties.

In a similar manner to examining the efficacy of TF-CBT, the format of TF-CBT is also examined in the literature. Researchers found that both eight sessions and 16 sessions of TF-CBT are associated with positive outcomes (Deblinger, Mannarino, Cohen, Runyon, & Steer, 2011). Additionally, the trauma narrative, an exposure component of the intervention, produces a unique and significant contribution to treatment outcomes (Deblinger et al., 2011). Lastly, parent participation is a recommended component of TF-CBT. However, research studies have reported

that participation in TF-CBT both with and without the parental component is associated with positive outcomes (Cohen et al., 2017; Ford & Nangle, 2015; Unterhitzenberger et al., 2015).

Researchers have also studied participant characteristics in studies of TF-CBT. TF-CBT has been found to be efficacious for a diverse array of trauma types and severity/frequency of trauma exposures (Scheeringa et al., 2011; Weiner, Schneider, & Lyons, 2009). Participant characteristics are also examined in the literature, and outcome findings are similar among racial and ethnically diverse populations (Cohen et al., 2004; Weiner et al., 2009). TF-CBT has also been successfully implemented in Western countries beyond the United States (Goldbeck et al., 2016) and diverse non-Western nations (Kameoka et al., 2015; McMullen, O'Callaghan, Shannon, Black, & Eakin, 2013). In addition to having been successfully implemented in diverse countries, TF-CBT is researched among in a range of non-school clinical environments. Positive efficacy outcomes associated with TF-CBT participation are found among various settings, such as residential placements, (i.e., foster care) (Cohen et al., 2017; Weiner et al., 2009) community mental health agencies (Webb, Hayes, Grasso, Laurenceau, & Deblinger, 2014), and trauma centers (Diehle, Opmeer, Boer, Mannarino, & Lindauer, 2015). Lastly, TF-CBT has been implemented successfully in urban, suburban (Cohen et al., 2004; Deblinger et al., 2006) and rural environments (Ford & Nangle, 2015).

Specific to the rural environment, Ford and Nangle (2015) evaluated a case study of TF-CBT in a rural, university-based, outpatient clinic. TF-CBT was implemented by a graduate student with a 16-year-old White female to treat pts symptoms associated with sexual trauma. The participant received 24-sessions of TF-CBT over nine-months. Essential components were delivered with limited parent participation. Post-intervention compared to baseline the

participant reported a reduction in pts symptoms from clinically significant to no longer meeting diagnostic eligibility criteria for Posttraumatic Stress Disorder (PTSD). Additionally, she endorsed increased involvement in school extra-curricular and social activities. The study's authors noted that access to trauma-focused treatment in the rural environment was limited, and the family had to travel two-hours round trip each week for their daughter to receive the intervention; this impacted treatment compliance and resulted in several missed appointments. In a recent study, Stewart, Orengo-Aguayo, Cohen, Mannarino, and de Arellano (2017) examined TF-CBT delivered through telehealth. Sixteen youth (7-16 years old), from a rural South Western United States community, participated in telehealth delivered TF-CBT at either their local school or home.

Within the aforementioned diverse settings, TF-CBT has also been implemented in the school setting, but to a less degree than clinical and mental health environments (Cary & McMillen, 2012; CATS Consortium, 2007). Only one published case study known to date has examined TF-CBT delivered specifically in the school setting. Stevens and Michael (2014) conducted a case study of a 16-year-old Latino male who received TF-CBT at his school to treat his trauma-related symptomatology associated with a motor vehicle accident. The researcher implementing the intervention documented the student's pts symptoms pre-intervention and post-intervention and progress monitored his pts symptoms. Additionally, the researcher recorded specific adaptations made to the intervention, such as grief specific components and elements unique to the school setting. At post-intervention, the student's pts symptoms had reduced from clinical levels to normal levels. Although this study provides rich data within the context of a case study, it did not describe a protocol designed specifically to adhere to the specific context of

the school setting, and it did not examine school-based stakeholders' perception of or satisfaction with the intervention. Teachers are an invaluable resource, and they can either bolster or hinder intervention efforts; therefore, it is essential to consider their perception of the services provided in a school setting. Additionally, one recent study examined TF-CBT delivered through telehealth at either their local school or home (Stewart et al., 2017).

In addition to Stevens and Michael's (2014) school-based case study, there have been two articles written to provide clinical considerations and recommendations for implementing TF-CBT in schools (Fitzgerald & Cohen, 2012; Rivera, 2012). School-based considerations when implementing TF-CBT include considering: (a) the inclusion of key stakeholders, (b) duration of intervention, (c) school-specific outcomes, and (d) parental participation. For example, both Fitzgerald and Cohen (2012) and Rivera (2012) discuss the unique role that teachers and school administrators play when TF-CBT is implemented in schools. For example, the students' teachers can be taught psychoeducation and basic relaxation skills that they then can reinforce with their students in the classroom. Classroom-based reinforcement of skills provides invaluable opportunities for the students to generalize their skills to a non-clinical setting. This example highlights the unique characteristics of a school setting that should be considered when implementing TF-CBT in schools. To date, to my knowledge, there are no studies that examine a teacher component associated with TF-CBT. Additionally, the research on TF-CBT in the rural setting is limited (Ford & Nangle, 2015; Stewart et al., 2017). However, the literature highlights the need for mental health services, specifically trauma-informed services for rural youth (Benavides-Vaello, Strode, & Sheeran, 2013; President's New Freedom Commission on Mental

Health, 2003), and it is most likely that youth will receive these services in schools (Green et al., 2013). Therefore, it is important to examine TF-CBT implementation in a rural school setting.

### **Statement of the Problem**

Although clinical suggestions exist to guide implementation of TF-CBT in the school setting, a study explicitly designed with a protocol for TF-CBT tailored to the school context has not been conducted. To my knowledge to date, no studies have examined TF-CBT in the school setting with a teacher component. The teacher component consists of classroom-based techniques and clinical techniques to support generalization of the skills the student learns throughout the intervention. Lastly, only one study has examined TF-CBT delivered in a rural, school setting, and the focus of the study was the delivery of TF-CBT via telehealth (i.e., the setting was periphery) (Stewart et al., 2017).

### **Purpose Statement**

Trauma exposure among youth is frequent and can result in long-term social-emotional, behavioral, and academic problems (Finkelhor et al., 2011; Kronenberg et al., 2010). Literature suggests that the school setting is the ideal place to meet the needs of all youth exposed to trauma (Gelkopf & Berger, 2009; Green et al., 2013). Despite a growing body of literature associated with trauma-focused, school-based interventions (Jaycox et al., 2010), the efficacy of TF-CBT has been sparsely explored in the school setting (Stevens & Michael, 2014). This study examined outcomes associated with participation in TF-CBT when implemented in a school setting within a rural environment. Using a multiple-case design with a mixed methods approach, this study described how TF-CBT with a teacher component was implemented in the school setting. The



study also examined student outcomes associated with participation in TF-CBT in the school setting. Lastly, the study examined how the intervention was perceived by key stakeholders.

### **Definition of Terms**

TF-CBT - TF-CBT is an evidence-based, trauma-focused intervention for children and adolescents ages 3-18 years. The intervention is designed to treat symptoms and problems associated with trauma exposure. The intervention is implemented by a trained mental health professional who adheres to a structured intervention protocol while maintaining flexibility (Cohen, Mannarino, & Deblinger, 2012). There are five primary components of TF-CBT which include: (a) exposure, (b) stress management, (c) cognitive restructuring, (d) parental treatment, and (e) psychoeducation.

Multiple-case study - A case study “is an empirical method that investigates a contemporary phenomenon in depth and with its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident” (Yin, 2018, p. 15). Yin states that multiple-case studies are a variation of a case study that includes multiple cases. Merriam and Tisdell (2015) expand on the definition of a case study by emphasizing that a phenomenon or case has definite boundaries. The literature has also delineated specific types of case studies. Yin (1984) defines three types of cases studies: (a) explanatory or interested in causal links, (b) exploratory or there are no clear expected outcomes, and (c) descriptive or interested in real-world contexts. Stake (1995) defines a case study as intrinsic or interested in understanding a phenomenon, instrumental or interested in answering questions or solving a problem, and collective or multiple-case studies. A collective case study can also be intrinsic or instrumental. This study is both explanatory and descriptive in its use of single case design to

examine outcomes post-intervention in the use of qualitative and quantitative data to describe how TF-CBT is delivered in the school setting with an emphasis on the context.

Trauma exposure/traumatic event - The *DSM-5* (APA, 2013) defines trauma exposure as exposure to actual or threatened death or serious injury, including exposure to a sexual violation. The trauma exposure must have been directly witnessed or directly experienced by the child or adolescent. The child or adolescents could have also learned of a traumatic event that impacted a close loved one, or they could have been exposed to repeated details of the traumatic event through a form other than the media. For the study, trauma exposure was defined by the *DSM-5* and was measured by the UCLA Posttraumatic Stress Disorder Reaction Index for *DSM-5* (UCLA PTSD-RI-5; Pynoos & Steinberg, 2015). A semi-structured clinical interview of the students' trauma/loss history was conducted using the UCLA PTSD-RI-5. The UCLA PTSD-RI-5 screens for a broad range of potentially traumatic events including domestic violence, bullying, and physical abuse. Additionally, information from school records and parent report of the students' trauma/loss history was gathered.

Pts symptoms (dependent variable) - For the study, pts symptoms were defined as a cluster of avoidance symptoms, hyper-arousal symptoms, and re-experiencing symptoms. Specific re-experiencing symptoms included: (a) reoccurring and distressing recollections or dreams of the traumatic event, (b) acting or feeling as if the traumatic event were occurring, and (c) physiological reactivity. Specific hyper-arousal symptoms included: (a) difficulty falling or staying asleep, (b) anger or irritability, and (c) difficulty concentrating. Specific avoidant symptoms included: (a) efforts to avoid thoughts, feelings, or conversations about the traumatic event; (b) restricted affect; and (c) diminished interest in participating in activities. For the study,

pts symptoms were measured using the UCLA PTSD-RI-5 which provides a total scale score of pts symptoms that is derived from items theoretically aligned the *DSM-5* (5th ed.; *DSM-5*; APA, 2013) criteria for PTSD which includes avoidance, arousal and hyperactivity, re-experiencing symptom, and increased negative thoughts or feelings associated with the trauma exposure.

Anxiety symptoms (dependent variable) - Anxiety symptoms and anxiety disorders are associated with excessive fear and anticipation of a future threat that results in behavioral disturbances. Generalized anxiety disorder (GAD) involves persistent anxiety in many domains of a person's life such as in work, school performance, and relationships. The *DSM-5* defines generalized anxiety symptoms as: (a) muscle tension, (b) irritability, (c) fatigue, (d) edginess, (e) sleep difficulties, and (f) sleep difficulties (APA, 2013). For the study, anxiety symptoms were measured using the self-report measure, the Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher et al., 1997) which provides a scale score of generalized anxiety symptoms that are aligned with the *DSM-IV* criteria for GAD (APA, 1994). Additionally, a total scale score of anxiety symptoms produced by the SCARED was used to measure anxiety symptoms. Lastly, a weekly measure of a student's fear or upsetting feelings due to the trauma on a 10-point Likert scale was used as a proxy measure of the presence/severity of anxiety symptoms.

Depression symptoms (dependent variable) - Depression symptoms and disorders are associated with characteristic features that include a sad or irritable mood that is persistent. Additionally, depressed children experience a negative impact on their functioning which is associated with somatic and cognitive changes. The *DSM-5* defines general depression symptoms as (a) significant weight loss, (b) insomnia/hypersomnia, (c) feelings of worthlessness,

(d) loss of interest in daily activities, (e) fatigue, (f) psychomotor agitation or decreased psychomotor activity, (g) irritability, and (h) inability to concentrate (APA, 2013). For the study, depression symptoms were measured using the Children's Depression Inventory 2 Self-Report (CDI 2; Kovacs, 2011). The CDI 2 measures general depression symptoms that comprise two significant subscales - Emotional Problems and Functional Problems associated with depressive symptoms among children.

Externalizing symptoms/behavior problems (dependent variable) - Externalizing symptoms/behavior problems manifest as an outward behavior in which students act on their external environment in a contrary manner (Liu, 2004). Generally, teachers and parents are better reporters of students' behavior problems than students themselves. Stanger and Lewis (1993) report teachers are better informants of externalizing behaviors of children than their parents. For the study, teacher and parent report of students' rule-breaking behaviors and aggressive behaviors were measured via the externalizing scale from the Child Behavior Checklist and the Teacher Report Form (CBCL and TRF; Achenbach & Rescorla, 2001). Additionally, teacher report of a student's attention/hyperactivity and conduct problems were measured via the Strengths and Difficulties Questionnaire – Teacher (SDQ-T; Goodman, 1997).

Academic performance (dependent variable) - Academic performance is the outcome of education. For the study, academic performance was measured through objective measures such as school attendance and homework/classroom completion. Homework/classroom completion was tracked by examining daily homework/classroom completion scores. Academic performance was also measured via subjective measures of academic competencies. The TRF (Achenbach & Rescorla, 2001) was used to assess the teacher's perception of the student's academic

performance (i.e., a Likert scale that indicates how well the student is doing in their coursework) and school-based competencies (i.e., a Likert scale measuring how well the student is behaving and how hard they are working compared to their same-aged peers).

### **Theoretical Framework**

TF-CBT includes all the significant elements of CBT, which combines both the major aspects of cognitive and behavioral approaches (Corey, 2015). The primary tenant of cognitive therapy is that a person must become aware of how they think, feel, and behave. A person becomes aware of their cognitive distortions, which are linked to their emotional state, and they must change their maladaptive thoughts to evoke change (Beck, 2011). A major tenant of behavioral therapy is that it focuses on observable behaviors, the underlying causes and consequence of behaviors, and learning to develop interventions to change or evoke the desired behaviors (Wilson, 2011). CBT combines the two approaches by focusing on the bi-directional relationship between an individual's thoughts, feelings, and behaviors. This approach includes cognitive strategies that facilitate in an individual evaluating their cognitive distortions and beliefs and creating more adaptive cognition thoughts. Additionally, this approach included specific behavioral strategies such as exposure techniques (Corey, 2015). The theoretical framework for TF-CBT asserts that thoughts, feelings, and behaviors are related, and procedures to change maladaptive thoughts and modify behaviors will be a mechanism for change.

TF-CBT also includes elements of attachment theory, theories associated with family therapy, and psychodynamic theories which emphasize the importance of relationships in the therapeutic process; therefore, TF-CBT consists of a parental component and emphasizes the client-therapist relationship (Cohen, Mannarino, & Deblinger, 2010). Lastly, a significant

element of TF-CBT is its trauma-focused strategies. These strategies are rooted in emotional processing theory (Foa & Rothbaum, 1998) and social-cognitive theory (Bandura, 2011).

Emotional processing theory asserts that fear structures are triggered and result in maladaptive reactions. Maladaptive reactions are addressed in TF-CBT by exposure to traumatic memories which increase habituation and adaptive associations thus reducing maladaptive responses when the fear structures are triggered (Foa & Rothbaum, 1998). Lastly, social-cognitive theory highlights the importance of exposure to traumatic memories, but the purpose is to review and process the feelings and thoughts associated with the event thus changing dysfunctional thought patterns related to the event and reducing feelings such as guilt and blame (Bandura, 2011).

### **Primary Research Questions**

The research questions for this study are as follows.

1. How is TF-CBT with a teacher component implemented in a rural school setting?
2. What are the outcomes associated with participation in TF-CBT in a school setting?
  - a. What is the effect of participation in school-based TF-CBT on pts symptoms for elementary and middle school-aged students?
  - b. What is the effect of participation in school-based TF-CBT on internalizing symptoms (i.e., depression and anxiety) for elementary and middle school-aged students?
  - d. What is the effect of participation in school-based TF-CBT on externalizing symptoms/behavior problems for elementary and middle school-aged students?
  - e. What is the effect of participation in school-based TF-CBT on academic performance for elementary and middle school-aged students?

3. How is TF-CBT with a teacher component perceived by key school-based stakeholders?

### **Hypotheses**

It was expected that students receiving TF-CBT with school-based components would experience a decrease in pts symptoms, depression symptoms, anxiety symptoms, externalizing symptoms/behavior problems post-intervention compared to baseline. Due to the limited research examining academic performance outcomes associated with participation in TF-CBT, the researcher did not have a hypothesis for what academic performance outcomes would look like, beyond the hypothesis that academic performance would not decline. It was expected that TF-CBT would be well received by the students; however, it was unknown how the intervention would be received by the teachers based on the lack of information to inform the hypothesis.

### **Research Design**

#### **Participants**

The study's recruitment took place in three public general education school (i.e., one lower elementary, one upper elementary, and one junior high school) in a rural Midwestern county. The schools were comprised of low-income and predominately White students. The schools were selected based on the schools' school psychologists' or mental health professionals' interest and desire to partner with the researcher and the schools' administrators' willingness to participate in the study. The study included four English-speaking students. The researcher partnered with the schools' school psychologist/mental health professional and the teachers at the school to identify students to participate in the study. Carl was a 3rd grade (8 years), White, male student. Abbie was a 7th grade (12 years), White, female student. The remaining two students,

Katie and Allison, were 6th grade (11 and 12 years), White, females. Before screening student participants, parental consent was obtained by the school psychologist/mental health professional. Only after parental consent was obtained did the researcher screen students for eligibility to participate in the study.

The UCLA PTSD-RI-5 (Pynoos & Steinberg, 2015) was used to screen the students to determine the presence of pts symptoms. A post-screening interview was conducted following the screening to further determine appropriateness for the study. Eligibility criteria included exposure to at least one traumatic event and clinically significant pts symptoms. Students were excluded from the study if they had current psychotic symptoms, a developmental disability, or mental retardation as determined by the participating school-based mental health professional. Cognitive approaches are not the best fit for individuals with cognitive deficits or would require significant adaptations to the treatment model (Cohen, Mannarino, Perel, & Staron, 2007; Holstead & Dalton, 2013). Additionally, students who had experienced their self-identified most bothersome trauma within the last three months before the screening were not included in the study due to the natural remission of pts symptoms that is often observed immediately following exposure to a potentially traumatic event (Goldbeck et al., 2016).

## **Measures**

Basic demographic information such as age, sex, race/ethnicity, and socio-economic status (SES) (i.e., as measured by free or reduced lunch eligibility) were collected. The study used a multiple-case study design with a mixed-methods approach (Yin, 2018). Several self-report measures of pts symptoms and trauma-related symptomatology were collected. The UCLA PTSD-RI-5 (Pynoos & Steinberg, 2015) was used to evaluate trauma exposure history



and pts symptoms. The CDI 2 (Kovacs, 2011) was used to assess depression symptoms. The Trauma Symptom Checklist for Children Alternative Version (TSCC-A; Briere, 1996) was used to determine significant distress associated with trauma exposure. The SCARED (Birmaher et al., 1997) was used to assess anxiety symptoms. Additionally, a parent report of their child's social-emotional and behavioral functioning was collected (i.e., CBCL, Achenbach & Rescorla, 2001); and teacher report of their participating student's social-emotional, behavioral, and academic functioning was collected (i.e., SDQ-T, Goodman, 1997; TRF, Achenbach & Rescorla, 2001). Lastly, the student rated their daily emotional distress.

## **Procedures**

Institutional Review Board (IRB) approval was obtained before implementation of the study's procedures. Baseline measures of child self-report of trauma-related symptomatology were collected before initiation of the intervention. Baseline teacher report and parent report of the student's social-emotional functioning, behavioral problems, and academic problems were obtained. Students received eight individual, weekly, 45-minute sessions (Mannarino et al., 2012) of TF-CBT that included a parent component and a teacher component. TF-CBT is a structured intervention and was implemented per the suggestions of the authors of the intervention and the researcher's design (Cohen, Mannarino, & Deblinger, 2006; 2016). Continuous progress monitoring of pts symptoms was conducted using daily student self-report of their emotional distress. Post-intervention, the baseline parent, student, and teacher measures were re-administered to assess change in the students' pts symptom and related symptomatology.

### **Research Design and Analysis Plan**

Prevention science research highlights the need to examine interventions that have been shown to be effective in one setting but are being implemented in a different setting. Prevention science research helps consumers to implement effective interventions in naturalistic settings while adhering to treatment fidelity (Domitrovich & Greenberg, 2000) and often utilizes a mixed-methods approach. The study utilized a multiple-case study design (Yin, 2018) with a mixed methods approach. The intervention was implemented individually with four student participants during the same academic school year. Each student was assessed at baseline and post-intervention for specific symptoms associated with trauma exposure. Baseline and post-intervention data were examined to assess change in trauma-related symptomatology and behavioral and academic problems. Progress monitoring data for homework/classwork completion and daily distress was examined using visual inspection of graphs. The graphs include baseline and intervention phases of daily progress monitored data for student daily distress and homework/classwork completion. The purpose of visual inspection of the graphs was to determine if a reliable change had been demonstrated and whether it could be attributed to the intervention. Qualitative data collection included: (a) open-ended teacher and student satisfaction survey questions, (b) trauma narratives created by the students, and (c) open-ended teacher and parent behavioral and social-emotional questions on the TRF and CBCL. Qualitative data were coded using open coding and axial coding methods. Thematic codes were examined by an auditor who was not affiliated with the study. Qualitative and quantitative data from multiple informants were used to triangulate data. Lastly, across cases, the qualitative and quantitative data were analyzed by comparing themes and aggregating outcomes data to inform findings.

Analyses of the quantitative data included the examination of fidelity tracking forms for adherence to the school-specific designed intervention protocol and use of rich narrative descriptions compiled from the researcher's clinical counseling notes (Merriam & Tisdell, 2015; Yin, 2018).

### **Significance of the Study**

This study's goal was to contribute to the current body of knowledge by directly addressing a gap in knowledge in the literature. Specifically, the main question focused on examining how TF-CBT with a teacher component implemented in the school setting. What are the outcomes associated with implementation? And how do key stakeholders perceive TF-CBT in the school setting? Lastly, this study includes a detailed description of school-based components of TF-CBT and adherence to fidelity throughout the implementation of the study. A detailed protocol allows for replication of the study, but more importantly, it provides school-based mental health professionals information about the school-based components of TF-CBT designed to fit the context of schools.

### **Assumptions, Limitations, and Scope (Delimitations)**

Several assumptions were made about the design of the study. There was an assumption that the students responded truthfully to survey measures. Because participation was voluntary, and anonymity was preserved, this was a reasonable assumption. Additionally, it was assumed that the students would continuously and voluntarily provide continuous self-report feedback. Incentives and check-ins were offered to bolster compliance. Second, it was expected that the teachers would actively participate in the study.

There were several limitations to the study. First, the study incorporated self-report ratings of daily distress associated with trauma exposure. Although daily self-report of symptoms has been found to be useful in tracking changes in symptoms, it may not have been the best measure to assess distress associated with trauma exposure because it asked the students to report their currently level of daily distress. This is only one marker of pts symptoms and is not sensitive to avoidance numbing symptoms. Further, daily report of distress may be susceptible to external factors (e.g., crisis of the day). Additionally, the measure was susceptible to baseline and ceiling effects. Lastly, findings are not casual due to lack of experimental control, and when generalizing the results to other populations, the characteristics of the cases should be considered.

### **Summary**

Trauma-focused interventions are effective in reducing trauma-related symptomatology and problems among youth (Cary & McMillen, 2012). Youth often receive mental health services in schools (Green et al., 2013); therefore, school-based, trauma-interventions have the potential of reaching the most students in need. There are several trauma-focused interventions that have been researched in the school setting (e.g., CBITS; Stein et al., 2002). TF-CBT is a rigorously empirically supported, evidence-based, trauma intervention for treating youth ages 3-18 years (Cary & McMillen, 2012; Silverman et al., 2008). Despite the rigorous empirical support, research examining outcomes associated with TF-CBT delivered in a school setting is sparse. To date, one case study has examined TF-CBT outcomes in the school setting (Stevens & Michael, 2014). Another study examining telehealth delivery of TF-CBT in the school setting and a clinic setting (i.e., the location was peripheral to the study). Further, despite clinical

recommendations, school-based adaptations have not been explicitly implemented and described as part of the research design of a study. The study examined TF-CBT outcomes in a school setting. This information can be used by school mental health professionals to guide their implementation of TF-CBT in a school setting. Additionally, the study provides a detailed description of the school-based components used in the intervention protocol. A detailed protocol allows for school-based recommendations that are rooted in the literature and designed from a school-based lens. The study's primary research questions are: (a) How is TF-CBT with a teacher component implemented in a rural school setting, (b) What are the outcomes associated with participation in TF-CBT in a school setting, and (c) How is TF-CBT with a teacher component perceived by key school-based stakeholders?

Four general education elementary and middle school students were selected purposefully by the schools' school psychologist/mental health professional to be screened for potential participation in the research study. Eligibility criteria included exposure to at least one traumatic event and clinically significant pts symptoms. TF-CBT is a structured intervention, and students received eight individual, weekly, 45-minute sessions of TF-CBT that included a parent and teacher component (Mannarino et al., 2012). Baseline and post-intervention self-report measures of pts symptoms and related trauma symptomatology were collected. Additionally, social-emotional, behavioral, and academic problems were assessed via parent and teacher report at baseline and post-intervention. In addition to baseline and post-intervention measures, progress monitoring of daily distress/fear was assessed via student self-report. Lastly, qualitative data collection included open-ended teacher and parent questions assessing the students' behavioral

and social-emotional functioning and teacher and student report of their overall satisfaction with the intervention. The trauma narratives were examined as well.

The study utilized a multiple-case study design (Yin, 2018). Quantitative data were inspected by examining change in student baseline to post-intervention symptomatology scores and examining single case design graphs for changes from baseline once the intervention was implemented. Qualitative data were examined through thematic analysis. Chapter Two, the literature review, provides a detailed review of the literature that examines outcomes associated with participation in TF-CBT. Additionally, Chapter Two provides a comprehensive review of the literature that examines TF-CBT implemented in a school setting. Chapter Three, the methods, provides the methods of the study, which includes participant selection, detail on the measures, protocol procedures, and a description of the intervention. Lastly, Chapter Three contains analyses procedures. Chapter Four provides a detailed description of the results of the study. Results are listed by each case and then across cases with a thorough examination of the results that inform each research question. Chapter Five summarizes the results in the context of the literature, discusses the implications of the study, limitations of the study, and future directions.

## CHAPTER TWO

### LITERATURE REVIEW

TF-CBT is the most widely disseminated mental health intervention for youth; has been rigorously researched; and has proven to be effective in reducing pts symptoms, anxiety symptoms, depression symptoms, and externalizing symptoms/behavioral problems among youth with prior trauma exposure (Cary & McMillen, 2012). Despite best practice recommendations for implementing TF-CBT in a school setting (Fitzgerald & Cohen, 2012), there has been only one study that has examined TF-CBT delivered in a school (Stevens & Michael, 2014). The subsequent literature review provides background information on this problem, which include trauma exposure prevalence and its impact on youth, as well as a review of the following topics.

- School-based treatment for trauma exposure among youth is discussed.
- Rationale for school-based trauma-informed interventions to treat symptoms associated with trauma exposure among youth.
- Introduction to TF-CBT and outcome studies associated with the intervention. The outcomes examined include: (a) depression symptoms, (b) pts symptoms, (c) behavioral problems/externalizing symptoms, (d) anxiety symptoms, and (e) academic performance. Because of the limited research available on academic outcomes specific to TF-CBT, the literature review includes information on academic outcomes associated with participation in a trauma-focused, school-based intervention that is like TF-CBT. These studies inform the research study on which

outcomes to measure and what to expect when examining outcomes associated with participation in TF-CBT.

- Intervention format characteristics and outcomes associated with specific components of the intervention. This information informs the research study by providing a rationale to include specific elements of the intervention in the study's protocol.
- Trauma exposure characteristics and characteristics of the participants as they relate to outcomes associated with the intervention. This informs adaptations necessary to the protocol and what outcomes to expect based on participant characteristics.
- Setting in which TF-CBT has been implemented successfully. Specifically, this section explores outcomes associated with TF-CBT implemented in a school setting. This section provides an outline of key components of TF-CBT that should be considered when implementing the intervention in the school setting.

### **Trauma Exposure among Youth**

#### **Prevalence**

Trauma is defined diagnostically per the *DSM-5* as exposure to actual or threatened death, serious injury, or sexual violence. Exposure can be the result of: (a) directly experiencing the event; (b) witnessing, in person, the event occurring to others; (c) learning that such an event happened to a close family member or friend; or (d) experiencing repeated or extreme exposure to aversive details of such events (APA, 2013). Trauma exposure among youth is prevalent (Finkelhor et al., 2015). In a national survey of 6,483 adolescents ages 13-17 years, 61.7% of the adolescents had experienced a potentially traumatic experience (PTE). Reported PTEs were diverse and broadly included: (a) interpersonal violence, (b) accidents, and (c) witnessing



violence. The three most prevalent PTEs were: (1) witnessing the unexpected death of a loved one (28.2%), (2) exposure to a manmade/natural disaster (14.8%), and (3) witnessing death or injury of a person (11.7%) (McLaughlin et al., 2013). In addition to a high prevalence of trauma exposure among youth, repeated trauma exposure among youth is common (Finkelhor et al., 2011). Finkelhor, Turner, Shattuck, and Hamby (2013) examined the National Survey of Children's Exposure to Violence and found that the 64.5% of the youth who reported any direct victimization had experienced more than one type of victimization.

Most students experience initial distress immediately following exposure to a traumatic event. Common initial reactions to trauma exposure immediately following the event include: (a) fear, (b) concentration difficulty, (c) avoidance, (d) loss of interest in activities, and (e) regressive behaviors (APA, 2013). These symptoms are normative reactions to exposure to a traumatic event, and most youth who experience a traumatic event will not experience long-term adverse outcomes associated with the exposure (Kronenberg et al., 2010; Le Brocque, Hendrikz, & Kenardy, 2010). However, some youth will experience lasting social, academic, and behavioral problems because of exposure to a traumatic event (Gerson & Rappaport, 2013).

Short-term and long-term impact of trauma exposure. Although most youth will recover and return to baseline functioning after exposure to a traumatic event, a significant number of youth will experience neurological and biological changes (De Bellis et al., 2002). These changes may result in long-term academic, social, and behavioral problems (APA, 2013). Social-emotional and behavioral outcomes of trauma exposure and subsequent symptomatology include depression symptoms, anxiety symptoms, pts symptoms, and behavioral problems (Finkelhor, Turner, Ormrod, & Hamby, 2009; Jensen et al., 2014). Symptoms associated with trauma

exposure can be divided into four categories: (a) affective (e.g., fear, depression, and anger symptoms), (b) behavioral (e.g., avoiding trauma reminders), (c) cognitive (e.g., distortions associated with the traumatic event), and (d) physical (e.g., sweating, increased heart rate) (Cohen, Mannarino, & Deblinger, 2006; 2016). Alisic and colleagues (2014) systematically reviewed 72-peer-reviewed articles examining youth exposed to trauma. Among the sample, 15.9% of children and adolescents developed posttraumatic stress disorder (PTSD) which varied in prevalence based on gender and type of trauma. McLaughlin and colleagues (2013) report a lifetime prevalence rate of 4.7% for PTSD among youth ages 13-17 years. PTSD symptoms, as delineated by the *DSM-5*, include avoidance (e.g., numbing), hyperarousal (e.g., irritability), and re-experiencing (e.g., nightmares) (APA, 2013). PTSD symptoms can manifest differently among young children, compared to adults and adolescents. For example, young children may experience generalized nightmares as opposed to trauma-specific nightmares (Salmon & Bryant, 2002; Scheeringa, Myers, Putnam, & Zeenah, 2012). Specific to the school setting, youth may experience academic difficulties that impact their ability to function, such as deficits in long-term memory and abstract reasoning, and memory for verbal information (Beers & DeBellis, 2002). Long-term academic outcomes associated with trauma exposure and symptomatology includes delinquency, substance abuse, and diminished educational and employment success (Edwards et al., 2004).

The relationship between attention-deficit/hyperactivity disorder (ADHD) and PTSD is complex. Comorbidity among PTSD and ADHD is high. Additionally, there is an overlap in symptom presentation (e.g., difficulty concentrating and hyperarousal) between the two disorders, and ADHD symptoms can compound difficulties among youth suffering from PTSD

(Biederman et al., 2006; Szymanski, Sapanski, & Conway, 2011). Additionally, the prevalence of ADHD as a special education diagnosis is high. The Center for Disease Control and Prevention (CDC) examined trends over a 12-year period from 1997-2008 from the National Health Interview Survey and found that ADHD under Other Health Impairment (OHI) was the second most common educational diagnosis at 6.7% of the general population. The prevalence of ADHD and PTSD among youth (Alisic et al., 2014; Boyle et al., 2008; McLaughlin et al., 2013) coupled by the overlap in symptom presentation among trauma-exposed youth and youth with ADHD (Szymanski et al., 2011) suggests that schools are an important setting to educate teachers on the identification of trauma exposure symptomatology among youth, thus improving identification of students suffering from trauma exposure with attention like symptoms.

### **Trauma Interventions for Students in the School Setting**

Children spend most of their day in an educational setting; therefore, schools are an ideal venue for providing mental health services (Gelkopf & Berger, 2009). There are school-based, trauma-focused interventions that can improve outcomes associated with trauma exposure (Gelkopf & Berger, 2009; Stein et al., 2003). Schools are an ideal setting for the identification of trauma exposure among youth and providing indicated services (Cohen et al., 2009; Fitzgerald & Cohen, 2012; Jaycox et al., 2006). The benefits of providing trauma-based services in schools include: (a) treatment in the student's natural setting, (b) elimination of common barriers, (c) access to academic records, (d) higher compliance rates for treatment, and (e) immediate follow-up and monitoring of students' behavior (i.e., symptoms such as inattention appear readily in schools) (Fitzgerald & Cohen, 2012; Jaycox et al., 2006; Wolmer et al., 2011). In addition to the tangible benefits of providing school-based, trauma-focused interventions, providing school-

based interventions is a matter of social justice and bolsters the possibility of treating students with the highest need that would not access services outside of schools due to resources (Richaud, 2013).

In one study, Jaycox and colleagues (2010) conducted a field trial in post-Katrina New Orleans and randomly assigned fourth through eighth grade students to receive a school-based, trauma intervention, cognitive behavioral intervention for trauma in schools (CBITS; Stein et al., 2002) or TF-CBT (Cohen, Mannarino, & Deblinger, 2012) delivered in a mental health clinic. Both treatment groups showed significant improvements in pts symptoms; however, 91% of the school-based intervention participants completed treatment, while only 15% of the clinic-based participants completed treatment. This finding highlights that school-based services enhance retention of youth who participate in trauma-focused interventions.

There is a large body of literature examining trauma interventions delivered in the school setting (Rolfesnes & Idsoe, 2011). At the universal level, school psychologists can provide trauma-informed services by helping to create trauma-informed schools. Essential elements to creating trauma-informed schools are training teachers on the impact of trauma and training teachers to use a trauma-informed lens, which is compassionate and strengths-based (O'Neill, Guenette, & Kitchenham, 2010; Walkley & Cox, 2013). The PREPaRE curriculum is a school-based crisis intervention and prevention model that can be used to help bolster trauma-informed school environments that include a focus on both psychological and physical safety (Brock et al., 2016). At the universal, targeted, selected levels, there are numerous trauma-focused, school-based interventions that have been implemented in the school setting with documented efficacious outcomes such as: (a) CBITS (Stein et al., 2013), (b) ERASE-Stress (Gelkopf &

Berger, 2009), (c) grief and trauma intervention (GTI; Salloum & Overstreet, 2008), and (d) trauma and grief component therapy for adolescents (Layne et al., 2008). Additionally, many trauma-focused interventions were researched and designed for other settings, but they have been implemented in the school setting such as structured psychotherapy for adolescents responding to chronic stress (SPARCS; DeRosa et al., 2006) and skills for psychological recovery (SPR; Berkowitz et al., 2010). These interventions typically include a cognitive behavioral approach, exposure treatment, and psychoeducation.

### **Trauma-Focused Cognitive Behavior Therapy (TF-CBT)**

#### **Intervention**

TF-CBT is an evidenced-based trauma intervention for children and adolescents ages 3-18 years old (Cohen, Mannarino, & Deblinger, 2012). TF-CBT is the result of two research teams' (i.e., Cohen, Mannarino, & Deblinger) combined efforts to design an evidenced-based intervention to treat symptomatology associated with childhood trauma exposure (Cary & McMillen, 2012). TF-CBT is a cognitive-behavioral intervention that includes elements of attachment, family, humanistic, and psychodynamic theory (Cohen et al., 2010). Several early iterations of TF-CBT go by a different name, but they are all similar to TF-CBT and include most of the primary components of the intervention. The earlier iterations of TF-CBT are specific to trauma related to sexual abuse (SAS-CBT; Cohen & Mannarino, 1998b) and CBT adapted for sexually abused pre-school children (CBT-SAP; Cohen & Mannarino, 1996a, 1996b, 1998a), which was formerly called structured parent-child psychotherapy (SPC-CP; Cohen & Mannarino, 1993).

There are five primary components to TF-CBT which include: (a) psychoeducation, (b) stress management, (c) cognitive restructuring, (d) parental treatment/involvement, and (e) exposure. The most significant component of the intervention is exposure (Cohen & Mannarino, 2008) which includes a trauma narrative (Dorsey et al., 2011). The intervention is designed to be implemented with flexible adherence to the fidelity of the treatment components. TF-CBT is delivered by a trained mental health professional who progresses through the primary components of the intervention while infusing new material with the previously learned material (Cohen et al., 2010). TF-CBT uses the acronym PRACTICE to describe its primary components (Cohen & Mannarino, 2008). *Psychoeducation* involves education about pts symptoms, anxiety, and the prevalence and impact of trauma. Psychoeducation starts during the first session and continues throughout the intervention. This component includes explaining the treatment plan and rationale for treatment. This component is essential to the success of the intervention. *Relaxation skills* are skills used for effectively coping when distressed. Students are taught relaxation techniques such as guided imagery and progressive muscle relaxation. *Affect regulation* involves a gradual exposure process (e.g., exposure to trauma reminders) coupled with identifying feelings, discussing feelings, and coping with current feelings. *Cognitive coping* includes education and practice on distinguishing between thoughts, feelings, and behaviors and exploration of helpful and unhelpful thoughts and education/activities on how trauma dysregulates/impacts a person's thoughts, feelings, and behaviors. The exposure component includes the *trauma narrative* and *in-vivo gradual exposure* to trauma reminders. In this stage, a hierarchy of increasing anxiety-provoking stimuli (related to the trauma) is created, exposure to the stimuli begins, and a trauma narrative (e.g., the written story of the traumatic event) is

created. Through various modalities, the student is gradually exposed and incrementally desensitized to trauma reminders. *Conjoint child-parent sessions* focus on the child sharing their trauma narrative with their parent. Lastly, the final sessions focus on *enhancing safety and the future development* of the student. This session includes an emphasis on teaching problem-solving skills, increasing personal safety awareness, increasing assertive communication, and developing a plan for treatment termination or providing treatment referral(s) (Cohen & Mannarino, 2008; Cohen, Mannarino, & Deblinger, 2012).

## **Research**

TF-CBT is the most widely disseminated mental health intervention for youth (Cary & McMillen, 2012; Dorsey et al., 2011; Silverman et al., 2008). A review of the literature through 2014 shows 11 RCT studies have been conducted on TF-CBT (Goldbeck et al., 2016), and over 22 scientific investigations have examined the efficacy of TF-CBT (Webb et al., 2014) in treating trauma-related symptomatology in youth (Cary & McMillen, 2012; Dorsey et al., 2011; Silverman et al., 2008). Since 2014 several RCTs have been conducted (Diehle et al., 2015; Jensen, Holt, & Ormhaug, 2017; Murray et al., 2015).

The Kauffman Best Practice Project (Chadwick Center on Children and Families, 2004) reviewed the literature on child abuse treatments. Twenty-four treatment protocols were reviewed, and 16 of the treatments were classified as supported and acceptable treatments which mean they had some empirical support for their efficacy. TF-CBT emerged as one of three treatment protocols for child abuse that had clear support for its efficacy, and TF-CBT was the only treatment protocol that was assigned the highest level of classification as a well-supported and efficacy treatment for child abuse (Chadwick Center on Children and Families, 2004).

The CEBC (CEBC, 2016) is a searchable database of child welfare treatment programs that provide concrete information on the efficacy of associated treatment programs. Like the Kauffman Best Practice Project, the CEBC has assigned TF-CBT a rating of a 1 or well-supported by research evidence on a 5-point Likert scale (1 = well supported by research evidence, 2 = supported by research evidence, 3 = promising research evidence, 4 = evidence fails to demonstrate effect, and 5 = concerning practice). For a study to earn a rating of 1 from the CEBC it must: (a) have at least 2 RCT studies conducted in two different settings, and the intervention outcomes are superior to a control group, (b) show sustained effects compared to a control group 1 year following treatment, and (c) have empirical evidence that has been published in a peer-reviewed journal (CEBC, 2016).

Like the CEBC, the Substance Abuse and Mental Health Administration's (SAMHSA) NREPP (TF-CBT, 2016) is a searchable database of evidence-based treatment practices. NREPP focuses more broadly on mental health and substance abuse interventions. NREPP rates programs' efficacy at treating specific problems. Interventions are rated as effective, promising, or ineffective for specific outcomes. TF-CBT is rated as effective for depression and depressive symptoms, general functioning and wellbeing, non-specific mental health disorders and symptoms, social competence, and trauma and stressor-related disorders and symptoms. For anxiety disorders and symptoms, and disruptive behavior disorders and externalizing behaviors, TF-CBT is labeled as promising.

### **Primary Outcomes: Internalizing Symptoms**

Many RCTs have shown TF-CBT is an effective intervention in reducing pts symptoms (Cohen et al., 2004; Jensen et al., 2014; Scheeringa et al., 2011) and anxiety symptoms



(Goldbeck et al., 2016; Mannarino et al., 2012). Cohen and colleagues (2004) conducted a large RCT study examining the efficacy of the branded version of TF-CBT compared to Child Centered Therapy (CCT). Youth were randomly assigned to either TF-CBT or CCT. The study's intervention protocol for TF-CBT consisted of 12, 45-minute sessions. The child and the caregiver each received nine individual sessions, and they received three-conjoint parent-child sessions. Social workers and psychologists conducted sessions in an outpatient clinic setting. Two-hundred and twenty-nine, 8-14-year-old youth and their primary caregivers participated in the study. The youth were primarily white (60%) females (79%) from urban, and suburban areas. All the youth had experienced childhood sexual abuse, and 89% of the youth met diagnostic criteria for a diagnosis of PTSD. Additionally, 90% of the sample had experienced other types of traumas such as sudden death or illness of a loved one (70%) and witnessing domestic violence (58%). The youth were not: (a) currently experiencing psychosis, (b) undergoing psychotherapy for sexual abuse, (c) on recent psychotropic medications, or (d) cognitively impaired. Baseline and post-intervention measures were collected on the children's pts, anxiety, and depression symptoms, attributions and perceptions of the trauma exposure, and behavioral problems. Cohen and colleagues (2004) found that students who participated in the TF-CBT group experienced significantly greater improvement in pts symptoms compared to students who participated in the CCT group. Only 19% of the participants in the TF-CBT group met diagnostic criteria for PTSD post-treatment, compared to 46% of the participants in the CCT group. Both TF-CBT and CCT participants experienced significant improvement in anxiety symptoms. Lastly, Cohen and colleagues examined the moderating effects of gender, race, ethnicity, age, and the number of sessions received on treatment outcomes, and they found that none of these variables had any

significant impact on outcome findings. Cohen and colleagues found that students who participated in the TF-CBT group experienced significantly greater improvement in depression symptoms compared to students who participated in the CCT group.

In addition to positive outcomes associated with pts and anxiety, RCTs have shown positive effects associated with participation in TF-CBT on depression symptoms. In an early study, Cohen and Mannarino (1998b) examined the efficacy of CBT-SAP (i.e., an early version of TF-CBT) in an RCT study comparing CBT-SAP to non-directive support therapy. CBT-SAP is like the branded version of TF-CBT, and the study intervention components included sessions on: (a) social skill building, (b) cognitive reframing, (c) thought replacement, (d) problem solving, and (e) self-monitoring. Forty-nine, 7-14-year-old youth, and their caregivers participated in 12 weekly, 45-minute sessions of concurrent caregiver only and child only CBT sessions at an outpatient clinic. All youth participants had experienced child sexual abuse. Youth were excluded from participation in the study if they had mental retardation, a developmental delay, active psychotic symptoms or substance abuse problems, or a severe medical illness. This was determined by consulting with the school psychologist/mental health professional. Additionally, the children's caregiver had to agree to participate in the study actively and had to be free of ongoing psychotic symptoms or substance abuse problems. Baseline and post-intervention measures were utilized to examine the child's psycho-social symptoms, child's abuse-related attributions and perceptions, family cohesion, parental/caregiver support of the child, and parental/caregiver emotional reaction to the abuse. Compared to youth in the non-directive support therapy group, youth in the CBT-SAP group had significantly more significant

improvement on depression symptoms and their overall competence (school, social, and activities) post-treatment.

### **Primary Outcomes: Externalizing Symptoms**

Although, less robust than pts and depression symptoms, TF-CBT is effective in reducing disruptive disorders and behaviors. As mentioned above, Cohen and colleagues (2004) also found that TF-CBT compared to CCT was superior in significantly reducing behavior problems among children participants. Additionally, in a RCT, O’Callaghan and colleagues (2013) reported a significant reduction in conduct problems among Congolese girls who participated in culturally modified TF-CBT compared to a wait-list control group. Lastly, Cohen and colleagues (2004) found participants in a TF-CBT group compared to CCT experienced significant improvements in behavior problems, shame, and abuse-related attributions compared to participants in the CCT group.

The positive RCT study findings associated with TF-CBT and anxiety symptoms, depression symptoms, pts symptoms, and externalizing symptoms/behavior problems are maintained at six months, one year, 18 months, and two-year post-treatment (Cohen et al., 2005; Deblinger et al., 2006; Deblinger et al., 1999; Jensen et al., 2017; Scheeringa et al., 2011). For example, Deblinger and colleagues (2006) conducted a follow-up study of the study by the same authors, Cohen and colleagues (2004). Deblinger and colleagues (2006) examined outcome maintenance six months and one-year post-intervention. Children who participated in the TF-CBT group compared to children who participated in the CCT group had significantly fewer pts symptoms at six months and one-year post-intervention.

**Primary Outcomes: Academics**

To date, there is no evidence for improvements in academic outcomes post participation in TF-CBT. In two experimental studies, Feather and Ronan (2009) and Jaycox and colleagues (2010) collected teacher report of student academic problems and social-emotional and behavioral problems in school; yet neither of these studies were school-based, and they did not find any significant outcome findings. Despite the sparse number of studies examining academic outcomes associated with participating in TF-CBT, there are a handful of studies that examine trauma-focused, school-based, CBT interventions and academic outcomes. For example, CBITS is similar to TF-CBT and includes most of the primary components of TF-CBT. In an RCT, Stein and colleagues (2003) examined teacher report of students' classroom problems such as learning problems and classroom acting out. Students were assessed at baseline and post-intervention and compared to their waitlist peers. Teachers did not report any significant difference between the early intervention group and delayed intervention group; however, a decrease in classroom-based acting out and learning problems were observed among the early intervention group at three months and six-month post-intervention.

**Intervention Format**

In addition to examining primary outcomes associated with participation in TF-CBT, several empirical studies have examined the format of TF-CBT. TF-CBT is an adaptable and flexible intervention (Cohen, Mannarino, & Deblinger, 2006; 2016; Little, Akin-Little, & Gutierrez, 2009) and format variations include: (a) type of sessions (i.e., group or individual), (b) intervention duration, and (c) quality of parent participation. Although RCT studies of TF-CBT primarily examine the individualized format of the intervention (or conjoint parent-child

sessions), TF-CBT is delivered in both individual and group formats (Deblinger, Pollio, & Dorsey, 2016). For example, an early foundational study that contributed to the creation of TF-CBT was conducted in a group format (Deblinger, Stauffer, & Steer, 2001; Stauffer & Deblinger, 1996). Also, two more recent RCT studies of TF-CBT examined a culturally modified version of the intervention for Congolese children in a group format (McMullen et al., 2013; O'Callaghan et al., 2013). McMullen and colleagues (2013) and O'Callaghan and colleagues (2013) found that compared to a waitlist group of youth who participated in the group format version of TF-CBT experienced significantly greater reductions in pts symptoms.

The recommended number of TF-CBT sessions varies considerably, with the creators of the intervention recommending 8, 12, or 16-sessions (Cohen, Mannarino, & Deblinger, 2012). However, empirical studies of the intervention report session numbers varying anywhere from 3 (Deblinger et al., 2001) to 28 (Unterhitzenberger et al., 2015). Deblinger et al. (2011) randomly assigned 210 youth ages 4-11 years old (61% White, 14% African American, and 7% Hispanic) with a history of sexual abuse and significant pts symptoms to either an 8-sessions TF-CBT group or a 16-sessions TF-CBT group in a clinic setting. Both treatment groups experienced a significant decrease in pts symptoms and related symptomatology; however, the 8-sessions group was most effective and efficient in lessening parent abuse specific distress and child abuse related fear and anxiety.

In addition to treatment length, Deblinger and colleagues (2011) examined the impact of the trauma narrative on treatment outcomes. Deblinger and colleagues compared treatment outcomes among treatment groups that were eight and 16-sessions long, with and without the trauma narrative component of the intervention. All treatment conditions were found to be

effective; however, children in the group that included the trauma narrative component reported significantly less fear when thinking or talking about the trauma than youth in the non-narrative treatment group. It is significant to note that because of the arousing nature of the trauma narrative, students may experience an initial increase in symptoms followed by a reduction in trauma-related symptomatology (Cohen et al., 2017).

The standardized version of TF-CBT recommends parent-only sessions dedicated to parent skills training concurrent with the child only sessions, and conjoint parent-child sessions toward the end of treatment for the child to share their trauma narrative with a supportive adult (Cohen, Mannarino, & Deblinger, 2012). A few RCT studies have examined the moderating effect of parent participation on treatment outcomes (Cohen & Mannarino, 1996b; Cohen & Mannarino, 1998a; Dorsey et al., 2014; King et al., 2000). For example, Cohen and Mannarino (1998a) found that at 1-year post participation in TF-CBT, the strongest predictor of positive treatment outcomes was parental support; yet King and colleagues (2000) found no significant advantage associated with parental participation. However, aligned with the interventions overall flexibility and adaptability, empirical studies have found efficacious treatment outcomes with limited parent/caregiver involvement (Cohen et al., 2017; Ford & Nangle, 2015; Unterhitzberger et al., 2015). Further, the intervention developers recommend that the child or adolescent can invite a substitute adult to participate in the intervention process (e.g., residential staff member or educator in child and youth welfare) or the parent component of the intervention can be excluded from the intervention protocol (Cohen et al., 2010).

## **Trauma Exposure Characteristics**

In addition to variability in treatment format, TF-CBT has been utilized to treat an extensive array of trauma exposure types (Scheeringa et al., 2011). Early TF-CBT studies examined the intervention among children who were victims of sexual abuse (Cohen & Mannarino, 1996b, 1998a, 2000). However, RCT studies examining TF-CBT have expanded to include children who have experienced heterogeneous trauma types such as acute injury, exposure to a natural/manmade disaster, witnessing domestic violence, sudden death or injury to a loved one, physical abuse within the home, and witnessing or experiencing violence outside of the home (Jensen et al., 2014; Scheeringa et al., 2011). Empirical studies have also examined homogenous trauma types such as traumatic grief, interpersonal violence, and terrorism and outcomes associated with TF-CBT (Cohen, Mannarino, & Iyengar, 2011; Cohen, Mannarino, & Staron, 2006; Weaver, Olin, & Wisdom, 2010). These studies have shown that TF-CBT is efficacious in treating a large variety of trauma exposures (Jensen et al., 2014; Scheeringa et al., 2011). Adaptations for some types of trauma exposures have been suggested. For example, specific modifications when working with children who suffer from traumatic grief can be implemented. These modifications include: grief-focused psychoeducation, creating and preserving positive memories of the deceased, and recommitting to current relationships (Cohen, Mannarino, & Staron, 2006).

Like types of trauma exposure, the timing of the trauma exposure should be considered. Cohen, Mannarino, and Iyengar (2011) found that among a sample of youth exposed to intimate partner violence, 40% of the youth reported ongoing trauma exposure. Although the impact of ongoing trauma exposure on TF-CBT treatment outcomes has not been directly studied,

researchers have provided best-practice guidelines for working with youth receiving TF-CBT who are experiencing ongoing trauma exposure (Cohen, Mannarino, & Murray, 2011; Murray, Cohen, & Mannarino, 2013). For example, when exploring avoidance of trauma reminders, the clinician should help the child to differentiate between real danger and perceived danger (Murray et al., 2013).

In addition to ongoing trauma exposure, many children and adolescents who have experienced trauma exposure will experience chronic and repeated trauma exposure (Finkelhor et al., 2011). There is a moderate amount of literature discussing the quality and frequency of the traumatic event on TF-CBT outcomes. In community settings or specialized settings, youth participants of TF-CBT have often been exposed to a large number and variety of traumatic events (Feather & Ronan, 2009; Konanur, Muller, Cinamon, Thornback, & Zorzella, 2015; Lawson & Hight, 2015; Webb et al., 2014; Weiner et al., 2009). For example, in an experimental study, Weiner and colleagues (2009) examined the impact of several trauma-focused interventions among 3-18-year-old youth (43% minority status) in foster care. Forty-six percent of the youth met criteria for complex trauma as measured by two endorsements from the trauma clusters: (a) sexual abuse, (b) physical abuse, (c) emotional abuse, (d) neglect, or (e) family violence. Weiner and colleagues (2009) found that TF-CBT was effective in reducing trauma-related symptomatology among this population of youth. Additionally, the study's authors found no discernable difference in treatment outcomes between minority youth and non-minority youth participants. Treatment modifications when working with youth with complex trauma include: (a) dedicating more time to coping strategies, (b) introducing the safety component of the



intervention earlier, and (c) including unifying trauma themes throughout the trauma narrative (Cohen, Mannarino, Kliethermes, & Murray, 2012).

### **Participant Characteristics: Race/Ethnicity**

In addition to treatment format and the quality of the trauma exposure, empirical studies have examined the differential effects associated with children and adolescents' characteristics (e.g., age and race/ethnicity) on TF-CBT treatment outcomes. Empirical studies examining the efficacy of TF-CBT have found no differential outcomes associated with the race or ethnicity of participants (Cohen et al., 2004; Weiner et al., 2009). However, researchers acknowledge the importance of cultural enhancements associated with the unique needs of the population being served such as when working with Latino youth and American Indian youth (Bigfoot & Schmidt, 2012; de Arellano, Danielson, & Felton, 2012).

### **Participant Characteristics: International**

In addition to a large body of empirical studies examining TF-CBT among diverse Western populations, some studies examine TF-CBT among non-Western populations. TF-CBT has been found to be efficacy among Congolese, Japanese, and Zambian populations (Kameoka et al., 2015; McMullen et al., 2013; Murray et al., 2015; O'Callaghan et al., 2013). Additionally, Unterhitzenger and colleagues (2015) conducted a case study of unaccompanied refugee minors who received TF-CBT in German mental health clinics. Six unaccompanied refugee adolescents from Somalia, Afghanistan, and Iran experienced clinically significant reductions in pts symptoms post participation in TF-CBT.

**Participant Characteristics: Age**

In addition to being used to treat diverse racial and ethnic minorities, TF-CBT has been used to treat children from a wide age range, spanning from 2-18 years of age (Jensen et al., 2014; King et al., 2000; Stauffer & Deblinger, 1996a). Most RCT studies examine TF-CBT among two distinct populations, young children (2-6 years old) (Cohen & Mannarino, 1996a; Deblinger et al., 2001; Scheeringa et al., 2011) and school-aged children (8-14 years old) (Cohen et al., 2004; Cohen, Mannarino, & Iyengar, 2011; Deblinger et al., 2006). However, community-based studies of TF-CBT have found positive outcomes among populations representing a broad range of participant ages (Goldbeck et al., 2016; Jensen et al., 2014). Additionally, two studies, Goldbeck and colleagues (2016) and Scheeringa and colleagues (2011) found differential effects associated with age. In an RCT study Scheeringa and colleagues found that younger participants (3 and 4 years old) compared to older participants (5 and 6 years old) had greater difficulty verbalizing the trauma narrative. In an RCT study of children ages 7-17 years, Goldbeck and colleagues (2016) found that age moderated treatment outcomes with younger participants (7 years old) benefiting more from treatment compared to older participants (17 years old). These findings are consistent with best practice recommendations regarding TF-CBT and developmental considerations which are that both the upper and lower age limit of the intervention requires developmental considerations. For example, for older youth, significant time should be spent on building rapport and for younger youth play-based strategies should be emphasized and stories should be used to decrease the cognitive demand of the intervention (Cavett, 2016; Holmbeck, Devine, & Bruno, 2010).

## **Treatment Setting**

TF-CBT has been evaluated in a range of diverse clinical settings. Efficacy outcomes associated with TF-CBT participation have been found among residential settings (i.e., foster care) (Cohen et al., 2017; Weiner et al., 2009) community mental health agencies (Webb et al., 2014), trauma centers (Diehle et al., 2015). Additionally, TF-CBT has been successfully implemented in both urban and suburban environments with robust RCTs examining the efficacy of the intervention among these populations (Cohen et. al., 2004). There are significantly fewer studies examining TF-CBT in a rural setting compared to urban and suburban settings. There have been two studies examining TF-CBT in a rural setting.

### **Treatment Setting: Rural**

In a single-case study, Ford and Nangle (2015) examined outcomes associated with the participation of the online version of TF-CBT in a rural university-based, outpatient clinic. The 16-year old participant with a history of sexual abuse reported a reduction in internalizing and externalizing symptoms, pts symptoms (i.e., clinical to non-clinical), and increased social functioning post-intervention compared to baseline. The authors noted several challenges associated with providing TF-CBT in the rural setting. First, the student had to travel two-hours round trip to receive the treatment after school each week. As extracurricular activities increased throughout the school year, the family had to frequently reschedule appointments. Additionally, the authors noted a paucity of trauma-focused services available in the rural community.

In a recent study, Stewart and colleagues (2017) examined TF-CBT delivered through telehealth service delivery. Sixteen youth (7-16 years old), from a rural South Western United States community, participated in telehealth delivered TF-CBT at either their local school or

home. Both parents and the youth reported a significant reduction in pts symptoms post-intervention compared to baseline with all youth completing the duration of the intervention. The authors briefly discuss working with school staff to create procedures and protocols for safety.

### **TF-CBT in the Schools**

Although TF-CBT has been implemented in diverse settings only one published study known to date has examined TF-CBT in a school setting (Stevens & Michael, 2014). Nearly all the research literature associated with TF-CBT has been conducted in a clinical setting. An additional study examined TF-CBT delivered through telehealth in a school setting or at the youth's home (Stewart et al., 2017). Stevens and Michael (2014) conducted a school-based, case study of a student receiving TF-CBT. The participant was a 16-year-old Latino male who self-referred to a school mental health program with self-reported anger and depression symptoms. The student had experienced a traumatic event three months before entering treatment in which he was the driver of a motor vehicle accident that resulted in the death of a classmate and close friend. The student's initial complaints included: (a) insomnia, (b) reoccurring and distressing memories of the traumatic event, (c) negative self-view, (d) verbal aggression and destruction of his property, and (e) suicide ideation.

The student received 15-sessions of TF-CBT that were delivered by a graduate student. Both the student's mother and the student received individual sessions on psychoeducation specific to trauma exposure. The mother's sessions also included parent skills training. The student received additional sessions on: (a) relaxation training, (b) affect expression and regulation, (c) cognitive coping and processing, (d) creating a trauma narrative, and (e) in-vivo exposure to trauma reminders. Grief components were infused throughout the intervention

sessions and included: (a) psychoeducation on grief, (b) resolving ambivalent feelings about the deceased, (c) preserving positive memories about the individual, (d) making meaning of the loss, and (e) redefining the relationship with the deceased and committing to present relationships.

A broadband measure of internalizing and externalizing symptoms, Behavioral Assessment for Children-Second Edition (BASC-2; Reynolds & Kamphaus, 2004), was completed at baseline and post-intervention by the student and his mother. Additionally, the student completed the Youth Outcome Questionnaire-30 (YOQ; Burlingame et al., 2004) at the beginning of each intervention session. The YOQ measures psychological symptom severity (i.e., intrusive thoughts, sleep disturbances, connection with peers, hyperarousal, and mood dysregulation within the week before taking the survey).

At baseline, the student reported on the BASC-2 at-risk levels of depression, somatization, hyperactivity, anxiety symptoms, and attention problems. Post-intervention, all the student's symptoms, except his hyperactivity symptoms, were self-reported to be in the average range. Similarly, at baseline, his mother reported he was experiencing symptoms of depression, somatization, and hyperactivity. Post-intervention, his mother reported he was no longer experiencing these symptoms. Although, at baseline, only his mother reported at risk adaptability scores, both he and his mother reported an increase in his adaptive functioning skills post-intervention. The student reported a better relationship with his parents and his mother reported he showed increased communication and adaptability skills. The student's weekly YOQ overall scale of psychological symptom severity score steadily decreased throughout treatment from severely distressed to not distressed at all with a slight increase in distress while he was working on his trauma narrative.

One complication of conducting TF-CBT in the school setting was the student's original reluctance to express his emotions while in school. This difficulty was overcome by the graduate student spending a significant amount of time building rapport with the student and walking outside on school grounds with the student during particularly emotionally difficult sessions. Despite this complication, the school setting allowed for several benefits such as: (a) access (i.e., the student's parents reported they were unable to take him to a clinic due to their work schedule), (b) contact to real life in-vivo trauma reminders (i.e., friends at school asking him about the accident), and (c) staff engagement during the intervention process (i.e., the School Resource Officer was on the treatment team and was able to encourage the student to use his coping strategies when he saw the student in the school hallways).

### **TF-CBT and School-Based Considerations**

Rivera (2012) and Fitzgerald and Cohen (2012) outline specific recommendations for successful delivery of TF-CBT in the school setting. The inclusion of school administrators, clinicians, and teachers in the treatment process is essential (Fitzgerald & Cohen, 2012; Rivera, 2012). Many of the skills taught to the student's parent or primary caregiver can be taught to the teacher as well. Recommendations for including teachers in the treatment process include the clinician: (a) working closely with the teacher to target limited top priority behaviors (i.e., behavior modification plan to be implanted in class); (b) teaching the teacher basic psychoeducation of childhood trauma, symptomatology, and its impact on a student's behavior; (c) including the teacher's input in case conceptualization and treatment planning; (d) enlisting the teacher's buy-in; (e) teaching the teacher basic relaxation and coping strategies in order for the teacher to reinforce these skills in the classroom; and (f) checking in with the teacher to

provide updates, but also receive information about how the student is functioning in the classroom (Fitzgerald & Cohen, 2012; Rivera, 2012).

In addition to including teachers in the intervention process, there are other school-based considerations.

- Parental inclusion in the process can be difficult; however, every effort should be made to include them when possible. Perceptual barriers perceived by the parent should be explored, and the clinician should work to overcome them.
- Additional considerations should be made when conducting exposure components of the intervention in the school setting. The student may become hyper-aroused when conducting exposure components; therefore, a buffer should be scheduled to allow time for the child to transition back into the academic environment successfully.
- Scheduling can be difficult in the school setting, and disruption in services is common. Ample time should be allotted to allow for scheduled breaks for testing and school holidays. A buffer should be created to also allow for rescheduling of sessions due to unscheduled breaks for things like student absences. Scheduling should include consideration of the sequences of components in relations to breaks. For example, it is not recommended to start the trauma narrative (i.e., which may be emotionally charging and require additional supports be available to the student) right before a long-scheduled school break.

Despite a strong rationale for why school-based delivery of TF-CBT is essential (Jaycox et al., 2010) and ample recommendations for successful delivery of the intervention in the school setting (Fitzgerald & Cohen, 2012; Rivera, 2012; Stevens & Michael, 2014), there are little to no

research studies examining specific TF-CBT outcomes in the school setting (Stevens & Michael, 2014). This study examined how TF-CBT with a teacher component is implemented in the school setting, what treatment outcomes were associated with participation in school-based TF-CBT, and how key stakeholders perceived the intervention.



## CHAPTER THREE

### METHODS

#### **Participants**

##### **Students**

The study targeted elementary and middle school-aged students because the population required fewer developmental modifications to the intervention as compared to providing the intervention to very young or older students (Cavett, 2016; Holmbeck et al., 2010). The schools were selected based on the school psychologist's/mental health professional's interest and desire to partner with the researcher and the school administration's willingness to participate in the study. Study recruitment took place in three public general education schools (elementary, upper elementary, and middle school) within two rural school districts in the Midwest. School District 1 is a large rural school district with approximately 2,000 predominately White students. Slightly less than half the students receive free or reduced lunch. School District 2 is a small rural school district with less than 500 predominately White students and slightly more than half of the students receiving free or reduced lunch.

Before recruiting participants, IRB approval from Loyola University Chicago was obtained. Consents from participating school's administration was obtained prior to conducting any research procedures within the schools. Additionally, parent consent to allow students to participate in the research study, parent consent to participate in the study (i.e., parent participation was optional) as well as teacher consent and student assent to participate in the study was obtained before any data collection procedures were implemented. The researcher

partnered with the school psychologist/mental health professional at the three schools. The school psychologists/mental health professionals at each school identified teachers who may have wanted to participate in the study and who had a student in their class who may have met eligibility criteria to participate in the study. The researcher then worked to obtain consent from teachers who were interested in participating in the research study. Four female teachers consented to participate in the study. Three of the teachers had their student participant within their classroom for most of the day, while one teacher had her student participant in one class period a day. All four teachers had known their student participants since the beginning of the school year (i.e., teacher had known the participant for 3-6 months).

The teacher participants identified potential students to participate in the study or worked with the school psychologists/mental health professionals to identify an eligible student participant. The researcher did not have any interaction with the potential student participants before obtaining parental consent for them to participate in the study. The consent form was sent home by the school and sought parental and student consent to participate in the study. If interested in participating in the study, the parent was asked to indicate if they would like their child to participate in the study and if they would like to participate in the study. Parents could opt out of participation and still agree to have their child participate in the study. The parent was asked to return the signed consent form to their child's teacher if they expressed an interest in participation. The consent form contained information for the parents to contact the researcher if they had any questions about the study. For two of the cases, the students' parents asked to speak to the researcher via the phone to have their questions answered before signing the consent form.

The other two parents spoke with the school psychologist/mental health professional before signing the consent form.

Of the four consent forms sent home, all four of the parents consented for their child and themselves to participate in the study. The study included four English-speaking students. One participant, Carl, was a 3rd grade (8 years), White, male student. One participant, Abbie, was a 7th grade (12 years), White, female student. The remaining two participants, Katie and Allison, were 6th grade (11 and 12 years), White, female students. Three of the participants (3rd and 6th-grade participants) were eligible for free or reduced lunch. One of the students received special education services for Other Health Impairment (OHI) due to ADHD. He was on stimulant medication for some of the duration of the intervention. Additionally, two of the students received outpatient non-trauma focused counseling services delivered in the school setting throughout the intervention. Three of the parent participants were the students' biological fathers, and one parent participant was the student's foster mother. In two cases, the student's step-mothers attended parent meetings per the students' biological fathers' requests. All the student and teacher participants completed the intervention and the study's baseline and post-intervention assessment measures. One of the three parent participants (25%) completed baseline and post-measures, and all the parent participants completed at least one in-person parent meeting.

Eligibility to participate in the study was determined using a screener and post-screening interview. Exclusion criteria included: (a) current psychotic symptoms, (b) a developmental disability, or (c) mental retardation. Additionally, students who had experienced their self-identified primary trauma less than three months before the screening were not included in the

study due to the natural remission of pts symptoms three months immediately following exposure to a potentially traumatic event (Goldbeck et al., 2016). Lastly, students who expressed sexual abuse as their primary trauma were not included in the intervention because of the challenges associated with treating child sexual abuse in the school setting (e.g., barriers to administrator support). Although, some authors have suggested child sexual abuse can be effectively treated in the school setting (Fitzgerald & Cohen, 2012). Eligibility criteria included exposure to at least one traumatic event and clinically significant pts symptoms as determined by a screener, the Posttraumatic Stress Disorder Reaction Index for *DSM-5* (UCLA PTSD-RI-5; Pynoos & Steinberg, 2015). Clinically significant symptoms were determined using the UCLA PTSD-RI-5. The UCLA PTSD-RI-5 utilizes *DSM-5* criteria to determine if the student most likely meets diagnosis criteria for PTSD. All four of the screened students met eligibility criteria to participate in the study. Student assent was obtained after completion of the screening measure and screening interview and before the start of the intervention. Refer to the measures section UCLA PTSD-RI-5 for an in-depth description of the screening process. Refer to Table 1 below displaying participant demographic information and baseline screening information. This information is explored further in the Results section.

Table 1. Participant Demographic and Baseline Screening Information

Student	Age	Grade	Sex	Race	Primary Trauma	UCLA Baseline Score
Carl	8	3rd	Male	White	Traumatic Separation	50 Met criteria for PTSD
Allison	12	6th	Female	White	Traumatic Grief	63 Met criteria for PTSD
Katie	11	6th	Female	White	Traumatic Separation	36 Met criteria for PSTD in all by one area
Abbie	12	7th	Female	White	Traumatic Separation	51 Met criteria for PSTD in all by one area
<i>Note.</i> UCLA = UCLA Posttraumatic Stress Disorder Reaction Index for <i>DSM 5</i> .						

### Independent Variable

#### TF-CBT

TF-CBT is a structured intervention and was implemented according to the authors' design (Cohen, Mannarino, & Deblinger, 2006; 2016). There are five primary components to TF-CBT which include: (a) psychoeducation, (b) stress management, (c) cognitive restructuring, (d) parental treatment, and (e) exposure. The most significant component of the intervention is exposure (Cohen & Mannarino, 2008) which includes a trauma narrative (Dorsey et al., 2011). Please refer to Chapter Two for a more detailed description of the intervention components.

### Dependent Variables

The following section provides an overview of each dependent variable in the study and how it was measured. The measure that was used to assess the dependent variable will be reviewed in detail following this section.

### **Posttraumatic Stress (PTS) Symptoms**

PTS symptoms were measured using the self-report measure, the UCLA PTSD-RI-5 (Pynoos & Steinberg, 2015) which provides a total scale score of pts symptoms that are derived from items theoretically aligned the *DSM-5* criteria for PTSD which includes avoidance, arousal and hyperactivity, re-experiencing symptom, and increased negative thoughts or feelings associated with the trauma exposure (APA, 2013). The UCLA PTSD-RI-5 was administered to students at baseline and post-intervention. It served as a measure of change in students' pts symptoms from baseline to post-intervention.

### **Anxiety**

Anxiety symptoms were measured using the self-report measure, the Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher et al., 1997) which provides a scale score of generalized anxiety symptoms that is aligned with *DSM-IV* criteria for a general anxiety disorder (GAD) (APA, 1994). The SCARED was administered to the participating students at baseline and post-intervention. The SCARED served as a measure of change in students' anxiety symptoms from baseline to post-intervention. In addition, a daily measure of a student's fear or upsetting feelings due to the trauma on a 10-point Likert scale was used to measure incremental change in fear/anxiety throughout the intervention.

### **Depression Symptoms**

Depression symptoms were measured using the self-report measure, the Children's Depression Inventory 2 Self-Report (CDI 2; Kovacs, 2011). The CDI 2 measures general depression symptoms that comprise two major subscales - Emotional Problems and Functional Problems associated with depressive symptoms among children. The CDI 2 was administered to

the participating students at baseline and post-intervention. The CDI 2 served as a measure of change in students' depression symptoms from baseline to post-intervention.

### **Externalizing Symptoms/Behavior Problems**

Teacher and parent report of a student's rule-breaking behavior and aggressive behavior was measured via the externalizing scale from the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). Additionally, teacher report of a student's attention/hyperactivity and conduct problems was measured via the Strengths and Difficulties Questionnaire (SDQ-T; Goodman, 1997). The participating students' parents completed the CBCL at baseline and post-intervention. It served as a measure of change in students' externalizing symptoms from baseline to post-intervention. Similarly, the SDQ-T was completed by the teachers at baseline and post-intervention. The measure provided information on the change in students' externalizing symptoms from baseline to post-intervention.

### **Academic Performance/Behavior Problems**

The Teacher Report Form (TRF; Achenbach & Rescorla, 2001). was used to assess the teachers' perceptions of the students' academic performance (i.e., a Likert scale that indicates how well the student is doing in their coursework) and their school-based competencies (i.e., a Likert scale measuring how well the student is behaving and how hard they are working compared to their same-aged peers). The TRF was completed by teachers at baseline and post-intervention to assess changes in the students' academic performance/behavior problems.

### **Measures**

Basic demographic information such as age, gender, race/ethnicity, and free or reduced school lunch eligibility were collected. Additionally, students' homework completion for both

math and English Language Arts (ELA) and their school attendance records (including suspensions and expulsions) were collected. Please refer to Appendix A for the list of measures that were given to each informant, what each measure assessed, and the timing of when the measures were given.

#### **UCLA PTSD-RI-5 (Pynoos & Steinberg, 2015)**

The UCLA Posttraumatic Stress Reaction Index IV identifies traumatic exposure and symptoms associated with PTSD (UCLA PTSD-RI-IV; Rodriguez, Steinberg, & Pynoos, 1999). The UCLA PTSD-RI-IV is one of the most widely-used instruments for the assessment of traumatized children and adolescents. It has adequate reliability and validity and has been used among various types of trauma exposures, ages, and cultures (Elhai et al., 2013; Steinberg, Brymer, Decker, & Pynoos, 2004). Additionally, the National Child Traumatic Stress Network (NCTSN) recommends the use of the UCLA PTSD-RI-IV when implementing TF-CBT (NCTSN, 2016). Steinberg and colleagues (2013) report Cronbach's alphas regarding internal consistency reliability estimates as greater than or equal to .90. The UCLA PTSD-RI-IV has been updated to be aligned with the *DSM-5* (APA, 2013) and includes an expanded trauma history clinical interview section. Permission to use the UCLA PTSD-RI-5 (Pynoos & Steinberg, 2015) for this dissertation was obtained by the researcher from the creators of the instrument. Although theoretically similar to the UCLA PTSD-RI-IV, the UCLA PTSD-RI-5 has less empirical research assessing its reliability and validity. In a recent study, Takada and colleagues (2018) examined the psychometric properties of the UCLA PTSD-RI-5 among a sample of 318 Japanese children and adolescents. The Total scale score had good internal consistency reliability



( $\alpha = 0.85$ ), and the TSCC-A pts subscale and the UCLA PTSD-RI-5 Criterion B and D subcategories were correlated.

The UCLA PTSD-RI-5 consists of 27 items assessing pts symptoms associated with the *DSM-5* (APA, 2013) diagnostic criteria for PTSD. For Criterion A of the *DSM-5*, a person must have been exposed to actual or threatened death, serious injury, or sexual violence. To assess this criterion, the UCLA PTSD-RI-5 provides a list of trauma/loss history screening questions that are intended to be used to collect information about the child's trauma exposure history through semi-structured interview techniques and other relevant sources (e.g., parent report). The list of trauma screening questions includes: (a) serious accidental injury, (b) illness/medical trauma, (c) community violence, (d) domestic violence, (e) school violence/emergency, and (f) physical assault, (g) disaster, (h) sexual abuse, (i) physical abuse, (j) neglect, (k) psychological maltreatment/emotional abuse, and (l) impaired caregiver, (m) sexual assault/rape, (n) kidnapping/abduction, (o) terrorism, (p) bereavement, (q) separation, and (r) war/political war, (s) forced displacement, (t) trafficking/sexual exploitation, (u) bullying, (v) attempted suicide, and (x) witnessed suicide. The form then asks the interviewer to indicate whether the interviewee witnessed, learned about, or was a victim of the traumatic event. Next, the student is asked to indicate which trauma/loss is most currently bothersome to the student. The form also asks the student to provide a brief description of the most bothersome event. If the student meets Criterion A, and they have experienced at least one potential traumatic event, the student's pts symptoms are assessed. The student is asked how much of the time in the past month they have experienced certain problems. The student indicates how often they have experienced the problem on a Likert scale of 1-5 (0 = none, 1 = little, 2 = some, 3 = much, 4 = most).

The identified problems are associated with the diagnostic PTSD symptom clusters: (1) Criterion B, re-experiencing; (2) Criterion C, avoidance; (3) Criterion D, negative thought or feelings; and (4) Criterion E, arousal and reactivity. Re-experiencing symptoms includes nightmares and unwanted upsetting memories. Avoidance symptoms include avoidance of trauma-related thoughts or feelings. Negative thoughts or feelings includes overly negative thoughts post-trauma exposure and decreased interest in activities. Arousal and reactivity symptoms include irritability and hypervigilance. To meet diagnostic criteria on the UCLA PTSD-RI-5 for PTSD, the student must have one or more Criterion B symptoms present, one or more Criterion C symptoms present, two or more Criterion D symptoms present, and two or more of Criterion E symptoms present. Additionally, the student must have met Criterion A, the symptoms duration must have lasted for longer than one-month, and the symptoms must be causing significant distress or impairment. Lastly, the UCLA PTSD-RI-5 also assesses for the presence of dissociative symptoms and Dissociative Subtype. Dissociative symptoms are associated with more chronic forms of PTSD (Lynch, Forman, Mendelsohn, & Herman, 2008).

The UCLA PTSD-RI-5 was administered as a screener and served as a baseline measurement of pts symptoms. The trained researcher read students the UCLA PTSD-RI-5 items, and students independently provided their written responses on their copy of the measure. If the student preferred not to have the measure read to them, they read the items independently and wrote their responses. The UCLA PTSD-RI-5 was also administered one-week post-intervention to assess post-intervention pts symptoms.

**CDI 2** (Kovacs, 2011)

Depressive symptoms were assessed using the CDI 2 Self-Report. The CDI 2 is a widely used measure of the presence of depression symptoms in children and adolescents, and it has adequate validity and reliability for youth ages 7-17 years (Kovacs, 1991; Petrorski, 2002; Smucker, Craighead, Craighead, & Green, 1984). Sun and Wang (2015) examined 282 studies that reported CDI Cronbach's alpha reliability scores and found a mean alpha of .831. The CDI 2 Self-Report consists of 28-items and two primary scales: Emotional Problems and Functional Problems. The CDI 2 also yields a Total scale score. Additionally, the measure has four subscales: (a) negative mood, (b) negative self-esteem, (c) ineffectiveness, and (d) interpersonal problems.

The CDI 2 Self-Report requires the students to report how often they have experienced a depressive symptom in the past two months on a Likert scale (1 = Not at all, 2 = Some of the time, 3 = Often, and 4 = Much of the time). Standardized scores ( $M = 50$ ,  $SD = 10$ ) for each scale compare the student's score to same-aged and same-gender peers. The Total standard score can range from Low, Average, High Average, Elevated, and Very Elevated with T-scores in the 64-69 range considered Elevated, and T-scores of 70 or above considered Very Elevated.

Students were read the CDI 2 Self-Report by the trained researcher and independently provided their written responses on their copy of the measure. Students were also given the option to read the measure silently and fill in their responses independently. The CDI 2 Self-Report was administered to the students at baseline and one-week post-intervention. The measure was used to assess students' baseline and post-intervention depression symptom severity. Lastly, the measure assessed specific questions related to suicide ideation (e.g., I think

about killing myself) which is important to measure because of the relationship between trauma exposure and suicide ideation (LeBouthillier, McMillan, Thibodeau, & Asmundson, 2015). If suicide ideation was endorsed by the student, a risk assessment was conducted. The risk assessment included the use of evidence-based protocols approved by Loyola's IRB. Additionally, in all cases, the partnering school psychologist/mental health professional was notified, and school-specific protocols were utilized. Local resources were utilized as needed. If the student endorsed suicide ideation, the parent/guardian was also notified. Carl endorsed mild suicide ideation at baseline. He also endorsed homicide ideation at mid-point, and a crisis team was called. Allison endorsed suicide ideation at baseline and post-intervention. A crisis team was called post-intervention.

#### **TSCC-A (Briere, 1996)**

The TSCC-A is specific to children ages 8-16 years who have experienced at least one trauma. The self-report measure is used to assess pts symptoms and related symptomatology. The measure is standardized for both males and females on a large (3,008) sample of racially and economically diverse children (Briere, 1996), and it is one of the most frequently used standardized measures of trauma symptoms in the United States. Briere reports Cronbach alpha's calculated on the scores of the scales yielded internal consistency reliability estimates above .80 (Wolpaw, Ford, Newman, Davis, & Briere, 2005). One indication of the validity of the scales on the measures is that they are congruent with similar scales of trauma symptomatology.

The TSCC-A consists of 54 items and six clinical scales: (a) anxiety, (b) depression, (c) anger, (d) posttraumatic stress, (e) dissociation, and (f) sexual concerns. The measure also contains two validity scales: under-reporting and hyper-reporting. The alternative version of the

measure is identical to the full version of the measure except it excludes the sexual concerns clinical scale, which is a challenging subject in a school setting. Students are instructed to self-report how often a problem has happened to him or her in the last month on a 4-point Likert scale (0 = Never, 1 = Sometimes, 2 = Lots of the time, & 3 = Almost all of the time).

Standardized scores ( $M = 50$ ,  $SD = 10$ ) for each scale compare the student's score to same-aged and same-gender peers, with T-scores of 65 or above considered to be in the clinical range.

Students independently read the TSCC-A, and indicated their responses on a hard copy of the measure. The TSCC-A was administered to students at baseline and 1-week post-intervention.

The TSCC-A was used to assess trauma-related symptomatology at baseline and post-intervention. Lastly, the measure assessed specific questions related to suicide ideation (e.g., I think about killing myself) which is important to measure because of the relationship between trauma exposure and suicide ideation (LeBouthillier et al., 2015).

#### **SCARED** (Birmaher et al., 1997)

The SCARED is a self-report measure of anxiety symptoms among youth ages 8-18 years ( $M = 14.5$ ). The measure's scale scores are both reliable and valid (Birmaher et al., 1997, 1999).

Among 83 outpatient children, the measure's total scale and five subscales scores yielded good to excellent internal consistency reliability estimates of .74 to .90) and test-retest reliability estimates of .70 to .90. One indicator that the scales are a valid measure of anxiety symptoms is the measure differentiated between children with anxiety disorders compared to children without anxiety disorders. The measure was also able to differentiate between different types of anxiety disorders. For example, children with a GAD scored higher on the GAD subscale than children with other anxiety disorders. In a more recent study, Monga and colleagues (2000) examined the

SCARED's ability to identify anxiety disorders among children in comparison to the CBCL (Achenbach & Rescorla, 2001), a commonly used measure of externalizing and internalizing symptoms among children. Two-hundred and nineteen male and female children ages 9-18 years old ( $M = 14.4$ ) who were predominately Caucasian (85%) were administered the SCARED and the CBCL. The SCARED Total score correlated better with the Internalizing scale of the CBCL than the Externalizing scale of the CBCL.

The child version of the SCARED consist of 41 questions. Students are asked on a Likert scale (0 = not true or hardly ever true, 1 = sometimes true; 2 = true or often true) how often they have had specific anxiety-related problems/feelings in the last 3 months. The measure consists of a Total score that ranges from 0-82 with a higher score indicating greater anxiety symptoms. The SCARED also includes several subscales, including one scale specific to school-related anxiety. The subscales are: (a) Panic/Somatization, (b) GAD, (c) Separation anxiety, (d) Social Anxiety, and (e) School Avoidance. All the subscales except the School Avoidance subscale are assessed according to the *DSM-IV* criteria (APA, 1994). School avoidance questions include: (a) I am scared to go to school, (b) I worry about going to school, and (c) I get stomachaches at school. The trained researcher read students the SCARED, and they independently indicated their responses on a hard copy of the measure. The students were also given the option to independently read the measure and independent indicate their responses to the items. The SCARED was administered to students at baseline and one-week post-intervention. The SCARED was used to assess baseline and post-intervention anxiety symptoms among student participants.

## **Fear Thermometer**

A Fear Thermometer consists of a Likert scale in which a visual representation of a thermometer (on a piece of paper, for example) provides a concrete way for students to rate the severity of their present level of fear/upset feelings. Please refer to Appendix B to view the Fear Thermometer borrowed from the CBITS manual (Jaycox, 2004, p. 111). The Fear Thermometer is a common CBT technique when assessing the emotional state of a child or adolescent (Jaycox, 2004). Researchers report adequate validity and reliability of the Fear Thermometer in assessing child anxiety (Kleinknecht & Bernstein, 1988). Additionally, King and colleagues (2000) administered the Fear Thermometer to children who participated in TF-CBT at baseline and post-intervention, and they found that children reported significantly less trauma-related anxiety post-intervention compared to pre-intervention.

The students were provided a visual representation of a thermometer that had interval labels indicating that a rating of 0 indicated they were not scared or upset, a lower mid-rating indicated they were a little bit scared or upset, and an upper mid-rating indicated they are pretty scared or upset, the highest ratings indicated they were really scared or upset. The students were provided a hard copy of the rating scale at the beginning of each intervention sessions, and they were instructed to indicate their current level of emotional distress associated with the trauma exposure. Additionally, the students were provided a folder of blank Fear Thermometers to complete each day independently at their convenience. The researcher checked in weekly with the students' progress on this task and provided incentives such as verbal praise and small incentives (e.g., stickers). This measure served as a continuous measure of the students' self-report of their daily emotional distress.

### **CBCL (Achenbach & Rescorla, 2001)**

The CBCL is used to obtain standardized data on a broad spectrum of competencies, adaptive functioning, and problems among children and adolescents. All demographic effects are small. For a demographically matched sample ( $N = 1,938$ ), Achenbach and Rescorla (2001) report Cronbach alpha's calculated on the scores of the scales yielded good to excellent internal consistency reliability estimates of .80. Further, all problem items scored significantly higher ( $p < .01$ ) for referred as opposed to non-referred children (Achenbach & Rescorla, 2001) which is one indicator that the items on the measure are valid indicators of externalizing and internalizing problems among children.

The CBCL is a parent report measure of demographic and competence (i.e., various activities, school, and academic) information as well as assesses behavioral, emotional, and social problems in children ages 6-18 years. The CBCL includes externalizing and internalizing symptom scales and a total score. Additionally, the measure consists of eight subscales: (a) Anxious/Depressed, (b) Withdrawn/Depressed, (c) Somatic Complaints, (d) Social Problems, (e) Thought Problems, (f) attention problems, (g) Rule-breaking Behavior, and (h) Aggressive Behavior. For the Externalizing and Internalizing symptom scales, parents are asked on a Likert scale (0 = not true, 1 = somewhat or sometimes true, 2 = very true or often true) whether statements describe their child in the past two months. Standardized scores ( $M = 50$ ,  $SD = 10$ ) for each scale compare the student's score to same-aged and gender peers with T-scores of 65-69 considered to be Borderline and T-scores of 70 or above considered to be Clinical. The CBCL was sent home with the participating child and independently completed by the students' parents or guardians at baseline and one-week post-intervention. The CBCL was used to gain the



parent's perspective of their child's baseline and post-intervention overall competency, social-emotional and behavioral functioning.

### **Strengths and Difficulties Questionnaire – Teacher (SDQ-T; Goodman, 1997)**

The SDQ-T is a teacher screening questionnaire for students, ages 3-16 years. The measure screens for externalizing behavior problems, internalizing behavior problems, and prosocial behaviors. The SDQ-T has adequate reliability and validity (Goodman, 2001). The measure has shown to be as good, or better than the CBCL at detecting hyperactivity/attention problems among youth and internalizing and externalizing symptoms (Goodman & Scott, 1999; Zavadenko et al., 2011). Stone, Otten, Engels, Vermulst, and Janssens (2010) conducted a meta-analysis of the psychometric proprieties of the parent and teacher version of the SDQ-T. Stone and colleagues found that for the teacher version the measure has good psychometric properties with test-retest correlations of .70 and above for all scales and good internal consistency for all scales except peer problems which was moderate. Additionally, the SDQ-T prosocial behaviors and peer problems subscale scores accurately distinguished between children with diagnoses and children without diagnoses.

The SDQ-T consists of 25 items that comprise five subscales: (a) Emotional problems, (b) Conduct Problems, (c) Peer Relationship Problems, (d) Hyperactivity/Inattention, and (e) Prosocial Behaviors. The questionnaire also produces a total difficulty score that ranges from 0-40 with a higher score indicating more problems. Score distributions among large populations yield cut-off scores that designate the student's difficulties as: (a) Average, (b) Slightly Raised, (c) High, and (d) Very High. The teachers were provided with hard copy versions of the SDQ-T, and they were asked to complete the screening questionnaire independently at baseline and one-

week post-intervention. The measure was used to determine the students' problem behaviors and prosocial behaviors in the school setting.

**Teacher Report Form (TRF; Achenbach & Rescorla, 2001)**

The TRF is used to obtain standardized data on a broad spectrum of competencies, adaptive functioning, and problems among children and adolescents. All demographic effects are small. For a demographically matched sample ( $N = 1,938$ ), Achenbach and Rescorla (2001) report Cronbach alpha's calculated on the scores of the scales yielded good to excellent internal consistency reliability estimates of .80. Achenbach and Rescorla report the cross-informant agreement between the CBCL and TRF is adequate.

The TRF assesses demographic, competence information (i.e., academic performance and school-based competencies), and adaptive functioning as well as behavioral, emotional, and social problems among children ages 6-18 years. The TRF includes an Externalizing scale, Internalizing scale, and a Total Problems scale. Additionally, the TRF consists of eight problem subscales: (a) Anxious/Depressed, (b) Withdrawn/Depressed, (c) Somatic Complaints, (d) Social Problems, (g) Thought Problems, (h) Attention Problems, (i) Rule-breaking Behavior, and (j) Aggressive Behavior. For the Externalizing and Internalizing symptom scales teachers are asked on a Likert scale (0 = not true, 1 = somewhat or sometimes true, 2 = very true or often true) how well statements describe the student in the past two months. Standardized scores ( $M = 50$ ,  $SD = 10$ ) for each scale compare the student's score to same-age and gender peers with T-scores of 65-69 considered to be Borderline and T-scores of 70 or above considered to Clinical. The TRF was independently completed by participating students' teachers at baseline and 1-week post-

intervention. The TRF was used to assess the students' baseline and post-intervention social-emotional and behavioral functioning in the school setting.

### **Research Design**

The study used a multiple-case study design with a mixed-methods approach (Yin, 2018). A case study is particularly suited to exploring how TF-CBT was implemented in the school setting and exploring the unique context and systems that influence the delivery of trauma-focused services in the school setting. For this study, the cases were four students engaged in the school-based delivery of TF-CBT. Each case clearly defines the boundaries. This study is explanatory in its use of single case design to examine outcomes post-intervention, and the study is descriptive in the use of qualitative and quantitative data to describe how TF-CBT is delivered in the school setting with an emphasis on the context. Lastly, the research design followed a positivist approach to case study research with a pre-planned and structured research design protocol and analysis plan (Yin, 2018). In-depth investigation of the cases included the use of a mixed-methods approach with quantitative pre and post-symptom severity data collected. Additionally, process monitoring data were collected to examine changes in symptom severity over time. Lastly, qualitative data collection included the collection of the students' written trauma narratives, open-ended satisfaction survey questions, and open-ended parent and teacher report of the students' symptom severity.

### **Procedures**

#### **Screening**

Teacher participation was sought through recommendation by the school psychologists/mental health professionals. The teachers consented to participate in the study. The

teacher participants identified potential students to participate in the study or worked with the school psychologists/mental health professionals to identify an eligible student to participate in the study. An initial informal screening process to ensure potential student participants were eligible to participate in the intervention was conducted before consent was sought. The informal screening process was achieved by providing eligibility criteria to the school psychologist/mental health professional and teacher to inform the referral process. Teachers and the school psychologist/mental health professional were provided a fact sheet about common reactions to stress and trauma to inform the referral process. Once a student was identified to participate in the study, the consent form was sent home, and if the parent was interested in having their child participate in the study, they were asked to review, sign and return the consent form to the child's teacher or the school psychologist/mental health professional. Additionally, the parent could consent to participate in the study or opt out of participation. Next, the student was screened for eligibility to participate in the study. The screening involved individual administration of the UCLA PTSD-RI-5 by the trained researcher. This included administration of survey questions and a semi-structured interview to assess the students' trauma exposure history. The screening measure and all subsequent measures administered were immediately scored based on criteria described in their manuals, and any critical items such as sexual abuse or suicidality were addressed according to the study's IRB protocol procedures, ethical and legal mandates, and the policies and procedures of the school. Additionally, the researcher worked with the school psychologist/mental health professional to appropriately address critical items and sought appropriate consultation from their graduate dissertation director. Parents were notified immediately when appropriate. Students who met eligibility requirements as determined

by the UCLA PTSD-RI-5 and the screening interview were provided the intervention 1-week following the screening.

### **Baseline and Post-Intervention Procedures**

The study began with a student screening for eligibility to participate in the intervention/study. Once a student was determined eligible to participate in the intervention/study, additional baseline measures to assess the students' trauma-related symptomatology were administered to the students. The students' parent and teacher also completed baseline measures of the students' academic functioning and social-emotional functioning. The researcher was trained in the administration of the measures and follow-up, and referral procedures were followed as necessary. Immediately following baseline assessment, continuous daily assessment of student report of daily distress was collected. After the students participated in the eight-week intervention, the baseline and screening measure were re-administered to the students, one-week post-intervention. The parents and teachers also completed the same measures they completed at baseline one-week post-intervention. Referrals were given as needed. Two students, Allison and Carl, received a referral post-intervention for counseling services.

### **Intervention**

The intervention was conducted by the researcher who was trained in-person in TF-CBT as part of a grant funded project to increase implementation of trauma-focused practices in schools. The researcher received clinical supervision from a licensed clinical psychologist and licensed school psychologist throughout the study. Additionally, the researcher utilized clinical

supervision from a social worker associated with a non-profit that routinely provides TF-CBT to students in the schools.

Students were provided a manualized version of TF-CBT. The intervention was delivered at the student's school in a private room. For three of the cases, the intervention was delivered in a counseling/speech pathologist office. One of the students, Abbie, received the intervention in the assistant principal's office. Only the researcher and the student were present in all cases. The researcher worked with the students' teachers to organize a time that was most convenient to pull the student from class. The students received eight individual 45-minute sessions (Mannarino et al., 2012). In Session 1, the students were taught psychoeducation about trauma exposure. In Session 2, the students were taught relaxation skills. In Session 3, the students were taught affective expression and regulation skills. In Session 4, the students were taught cognitive coping strategies. In Session 5, the students developed the trauma narrative and began processing the trauma exposure. Participation in the intervention and all its components was voluntary. Although students were encouraged to discuss their traumatic event, they were not coerced or forced to discuss anything that caused them extreme stress – rather, relaxation and calming techniques were utilized. The researcher included essential trauma narrative component guiding questions to direct the trauma narrative process which included: (a) an introduction to the self, (b) memories about the trauma, (c) the trauma details, and (d) meaning-making. In Session 6, students continued to develop their trauma narrative and experience exposure to traumatic reminders. In Session 7, students continued or completed their trauma narrative. Lastly, in Session 8, the students created a personal safety plan and explored areas for future growth. The students also shared the trauma narrative with their parents or a supportive adult when

appropriate. The sessions were iterative and cumulative. The parent component of the intervention included a baseline psychoeducation session in which the parents' input about their child's social-emotional functioning was sought. Additionally, the parents were provided with feedback about their child's baseline measure results and the content of the intervention. During a post-intervention parent meeting, the progress of the student was discussed. Additionally, parents were provided with referral options. Lastly, safety was discussed when appropriate. Parent meetings took place in-person at their child's school or via the phone (the medium in which parent meetings were conducted are discussed further in the Results section).

The researcher worked with each student's teacher when implementing the teacher component of the intervention. The teacher sessions were conducted one-on-one. Session frequency and duration were based on meeting specific goals, not a specific number of sessions or length, and session topics mirrored the student intervention sequence of topics. A menu of services were provided to the teachers that included: (a) working closely with each teacher to target limited top priority behaviors (i.e., behavior modification plan to be implanted in class) and develop a behavior plan for the participating student; (b) teaching each student's teacher basic psychoeducation on childhood trauma, symptomatology, and its impact on a student's behavior; (c) including each teacher's input in case conceptualization and treatment planning; (d) showing the teacher basic relaxation and coping strategies so that the teacher could reinforce these skills in the classroom; and (e) checking-in with the teacher to provide updates, but also receive information about how the student was functioning in the classroom (Fitzgerald & Cohen, 2012; Rivera, 2012).

Fidelity tracking-sheets were utilized by the researcher to ensure the core components of the intervention (i.e., psychoeducation, cognitive restructuring, exposure, trauma narrative, and problem-solving) were adequately implemented (Deblinger, Cohen, Mannarino, Murray, Epstein, 2014) and to document how the intervention was implemented. Additionally, the teacher portion of the intervention and its core components were documented by the researcher through use of a fidelity measure. The tracking of adherence to the fidelity of the intervention was completed by the researcher at the conclusion of each intervention session. Lastly, parent interactions were documented by the researcher. Please refer to Appendix C to review the student and teacher fidelity tracking sheets.

### **Social Validity**

Social validity was assessed by measuring teacher and student self-report of satisfaction of the intervention post-intervention. The student responded to a basic self-report questionnaire that required the students to report on specific aspects of the intervention. The student respondents rated their level of agreement on treatment acceptability items (Likert Scale; Strongly Disagree = 1, Disagree = 2, Slightly Disagree = 3, Slightly Agree = 4, & Agree = 5). A rating of 5 indicated stronger treatment acceptability. The items included: (a) This intervention has helped me deal with the trauma/stress I experienced, (b) In this intervention I learned helpful skills and techniques that I can use in the future, (c) I would suggest this intervention to a friend if they needed the same kind of help, (d) I would like to participate in follow-up and review sessions of this intervention in the future, and (e) I feel comfortable and safe with my intervention leader(s). Open-ended questions included: (a) What did you like most about the intervention?, (b) What did you learn (if anything)?, and (c) How could this intervention be



improved? The teachers responded to a similar satisfaction survey that asked them to report their satisfaction with the specific elements of the teacher component of the intervention. Open-ended questions included, what did you like most about the teacher component of the intervention, and how could the teacher component of the intervention be improved?

### **Data Analysis**

The study utilized a mixed-methods approach, multiple-case design to examine how TF-CBT with a teacher component is implemented in the school setting and how key stakeholders perceive TF-CBT in the school setting. Additionally, the study examined the impact of TF-CBT on students' pts symptoms and trauma-related symptomatology. The analysis was three-fold. The first part of analysis included an examination of the pre-post symptom severity score data and visual inspection of single case graphs (Kazdin, 2011). The data collected by using standardized measures at baseline and post-intervention were examined using basic descriptive statistics which included reporting means of the pre-post data and change in mean scores post-intervention compared to baseline. Lastly, qualitative data was examined used open coding methods

The analysis of the progress monitored data (i.e., daily fear and assignment grades) included examining graphs of baseline and intervention phases of daily progress monitoring data. The purpose of visual inspection of the graphs was to determine if a reliable change had been demonstrated and if it could be attributed to the intervention. The impact of the intervention on the desired outcomes was determined by examining the pattern of data within individuals to determine if a behavior shift occurs at each point the intervention was introduced. Additionally, a change in trend was examined. Trend refers to an upward or downward systematic decrease in the data. The effect size of the intervention was also calculated by examining the percentage of

non-overlapping data. Calculating the effect size was achieved by taking the median at the baseline and calculating how many of the intervention points fall below this data point and dividing that by the total intervention points (Olive & Franco, 2008).

Next qualitative data including open-ended questions on students' symptom severity, and the students' trauma narratives were coded using open-ended coding procedures. Qualitative data were grouped and coded based on the research question the data-informed. Qualitative data was examined line-by-line by the researcher, and emergent codes or themes were created to describe each piece of data. This coding process was emergent and recursive, and it was continued until each line of data had its unique code or theme. Then axial coding procedures were used to consolidate and refine themes or codes. Finally, the data was examined by an auditor to confirm the findings. The auditor was unaffiliated with the research study. The auditor had training in qualitative data analysis and a held a Master's in psychology. The auditor examined the data for additional emergent codes. Consensus was met between the researcher and the auditor on emergent themes through discussion. Lastly, qualitative and quantitative was integrated within and across case to richly describe, inform, and triangulate findings (Merriam & Tisdell, 2015). Lastly, cross-case synthesis of the four case studies was conducted. A cross-case synthesis was achieved by using a case-based approach in which the within case patterns were described and used to illuminate patterns across cases. Each case was analyzed in-depth, and then emergent within-case thematic findings were explored. These findings were then used to inform across case findings (Yin, 2018).

## CHAPTER FOUR

### RESULTS

The results provide a detailed analysis of all four case studies. Following these analyses, the reader is provided a cross-analysis of the cases.

#### **Case Study 1: Carl, 3rd Grade, 8-year-old Male**

##### **Intervention Content**

Carl received eight sessions of TF-CBT that followed a sequential and iterative process. Each session was 30-minutes in length. The intervention was implemented in the 2nd semester (3rd and 4th quarter) of the school year. Carl also received three rapport-building sessions prior to the start of the sessions. The rapport-building sessions were a specific adaptation based on his developmental age of 8 years. The intervention creators suggest more play-based (i.e., less content heavy) approach when working with younger children during TF-CBT (Cavett, 2016; Holmbeck et al., 2010). Additionally, Carl presented as significantly developmental younger. He displayed behaviors of a child much younger than his chronological age. For example, he frequently asked for hugs and enjoyed coloring books geared towards students five years of age or younger. Specifically, the rapport-building sessions focused on play-based rapport building. Session 1 included administration of assessment measures (i.e., the Fear Thermometer was administered at the beginning of each session), and the provision of psychoeducation about trauma(s), reactions, reminders, and treatment. The start of trauma-specific psychoeducation for Carl included generalized discussion about common reactions to stress and trauma. The session included reading the story by Holmes and Pillo (2000), *A Terrible Thing Happened*. Carl

identified the reactions he was currently experiencing which included not wanting to talk about the “terrible thing that happened” and feeling anger. Session 2 consisted of: (a) provision of psychoeducation about trauma types, trauma reactions, trauma reminders, and treatment; and (b) provision of individualized relaxation skills. Starting during Session 2, individualization of relaxation skills was introduced. Specifically, Carl was less responsive to guided meditation and preferred deep breathing exercises and calming sensory activities such as playing with a small sand tray. These techniques were more responsive to his co-morbidity of ADHD; when he was aroused, meditation and lack of movement was too difficult to accomplish. Relaxation and distraction strategies were utilized for 5-10 minutes for Sessions 2-8. Additionally, the rationale for TF-CBT and sessions content was discussed. The metaphor of cleaning a wound when explaining the rationale for engaging in therapy for trauma exposure was used (Cohen et al., 2017). The metaphor is used to parallel the initial pain we may feel when cleaning out a wound, but if we clean out the wound we eventually feel better and it does not fester and become infected. Session 3 consisted of: (a) continued provision of psychoeducation about trauma types, trauma reactions, trauma reminders, and treatment; (b) the provision of affect expression, identification, and modulation skills; and (3) an introduction to the cognitive triangle/optimistic thinking. The Triangle of Life application was used to help teach this concept (Mannarino & Cohen, 2015). Session 4 consisted of the provision of affect expression, identification, and modulation skills. Specifically, Carl drew a picture of himself and used colors to depict specific feelings he experienced and colored in his body where he felt those emotions. Carl was also asked to generate a list of unhelpful things he says to himself. Carl was then asked to create a list of helpful counter thoughts he could say to himself to start to build his self-esteem, which was a

problem area he self-identified during his baseline assessment. Carl reported some of the things he says to himself are: (a) I am fat, (b) no one likes me, and (c) I am stupid. He was able to generate several more helpful things to say to himself such as: (a) my mom and dad love me, (b) I like how I look, and (c) I am good at building Legos. He was asked to repeat these messages to himself in a mirror several times, and he was encouraged to do this at home. Session 5 consisted of continued introduction to the cognitive triangle and introduction to the creation of the trauma narrative (i.e., Please refer to the Trauma Narrative subsection of this case to receive more information about the construction and content of Carl's trauma narrative). Session 6 and Session 7 consisted of the continued development of the trauma narrative. Lastly, Session 8 consisted of finalization of the trauma narrative, cognitive processing of maladaptive thoughts, and review of the narrative and addressing personal safety. Personal safety included a discussion about sexual safety, and a safety plan was created regarding potential exposure to physical or domestic violence. Lastly, Carl identified safe and trusted adults outside and inside school whom he could report to if a situation were unsafe. Refer to Figure 1 for a visual representation of the frequency of PRACTICE components.

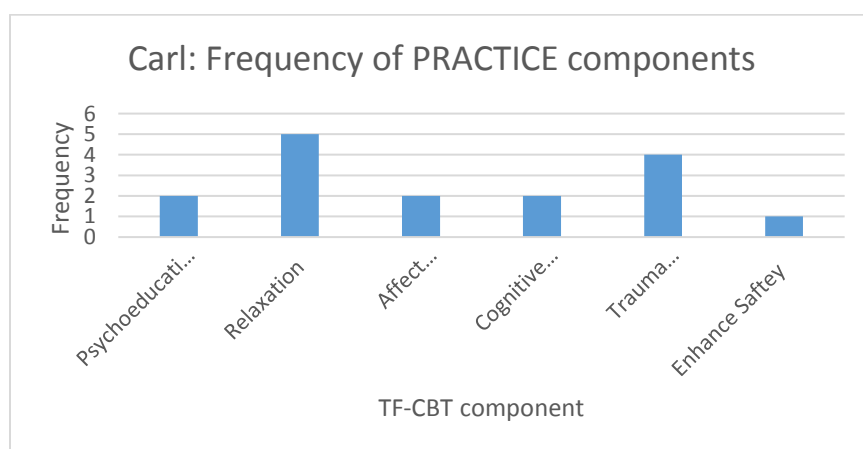


Figure 1. Frequency of PRACTICE Components (Carl)

**School-Based Stakeholder Participation: Teacher**

School-based treatment also included working with Carl's parents, classroom teacher, and his Individualized Education Plan (IEP) team. After each session, the researcher checked in with his classroom teacher for 5-15 minutes. This time was used to provide the teacher with an update on Carl's progress (e.g., notifying the teacher when we were working on the trauma narrative because symptoms can increase during this timeframe). This time was also used to gain feedback from the teacher to inform treatment planning. For example, the teacher was able to notify the researcher when Carl was having a difficult day and having difficulty concentrating. On those days, the researcher emphasized relaxation strategies during treatment. The teacher was provided psychoeducation on trauma in schools using the Child Trauma Toolkit for Educators (NCTSN, 2008). The teacher was also provided psychoeducation on trauma exposure. This information was generalized (i.e., common reactions to stress and trauma) and specific to Carl's individual needs. For example, Carl was hugging his teacher, students, and random school staff indiscriminately and repeatedly. The teacher expressed concern about this, but she felt that providing him with hugs was necessary to support him emotionally. The researcher worked with the teacher and Carl's IEP team to reframe his need for hugs as a need for structure and support and boundary setting. With education, the team was able to present a united front and redirect Carl to give high-fives. His indiscriminate hugging behavior was subsequently greatly reduced.

**School-Based Stakeholder Participation: School Psychologist/Mental Health Professional and Administrator**

The school psychologist served as a liaison between the researcher and the school and the researcher and Carl's family in the initial relationship building phase of the intervention. The

school psychologist also helped to guide the researcher about self-care (i.e., the importance of caring for the caregiver, especially when engaging in trauma-focused work). Lastly, the school psychologist served an integral role in facilitating implementation of the intervention. The researcher consulted with the school psychologist bi-weekly and alerted the school psychologist of any crisis events. Additionally, the assistant principal at Carl's school was integrally involved in facilitating implementation of the intervention. The assistant principal actively participated in the meeting to introduce the intervention Carl's parents. Moreover, the assistant principal notified the researcher when crisis situations arose.

### **School-Based Stakeholder Participation: Parent/Guardian**

In addition to working with Carl's IEP team and classroom teacher, the researcher worked with Carl's biological father and his step-mother. Two parent meetings were conducted with Carl's step-mother and his IEP team. For the first meeting, the IEP team met, and the parent attended the meeting on a conference call. The first meeting included information about the research study and the intervention's content. Information about the parent's concerns about Carl's functioning and wellbeing were elicited. The final meeting was conducted at the end of treatment to inform the team and parent about the Carl's progress, ongoing needs, and develop a plan to continue to support Carl. Psycho-education was also provided during this time. Safety was also discussed, specifically, around concerns about Carl's safety when visiting his biological mother.

### **Trauma Exposure History and Trauma Narrative**

Carl's trauma history was orally assessed via a clinical interview using the UCLA PTSD-RI-5's trauma/loss history screening questions. Carl endorsed several traumatic experiences

including: (a) domestic violence (i.e., biological mother and boyfriend), (b) physical abuse (i.e., excessive corporal punishment by biological father), (c) psychological maltreatment/emotional abuse, (d) impaired caregiver (i.e., biological mother), and (e) separation (i.e., from biological mother). Although it was not explicitly endorsed by Carl, the researcher noted a suspicion of prior sexual abuse which was corroborated by the school social worker and school psychologist. Additionally, Carl's biological father noted a history of exposure to an impaired caregiver (e.g., biological mother). Carl had extreme difficulty reporting the traumatic events temporally. During treatment, Carl experienced one additional potentially traumatic experience, the death of an aunt. The UCLA PTSD-RI-5 asked Carl to "provide a description of the trauma/loss type that is most bothersome." Carl reported, "Guy at a party punched my mom." This trauma was used as a starting point to focus on for the creation of the trauma narrative. As treatment progressed, Carl revealed his most bothersome event was the traumatic separation from his mother when he was 5-years old.

Carl was resistant to disclosing his trauma history, and it is suspected (i.e., based on parent and school mental health professional's reports) that he was not disclosing his full trauma history. Due to his resistance to self-disclosure and his age, the researcher started the trauma narrative portion of the intervention by asking Carl to write about himself. He wrote, "When I was little I grew-up, and when I grew up we went to a garage sale and I saw lights and I liked lights so I kept on collecting lights then I liked lights so much." He mentioned lights three times in one run-on sentence. This repetition of mentioning lights was reflective of his preoccupation with this topic. The researcher then asked Carl to draw a time when he was happy. He drew a picture of him and his mom and wrote, "I am happy with my mom and that I love her." This



picture helped to clarify, along with the use of consultation and reflective listening techniques, that Carl's primary trauma was separation for his biological mother. Before this drawing, Carl had drawn several pictures of horror movies that he identified as his primary trauma (e.g., nightmares about the monsters/characters in the movies), which was a shift from his initial report of his primary trauma on the UCLA PTSD-RI-5 which was witnessing his mom being punched by her boyfriend. It is not uncommon for younger children to experience pts symptoms in the form of nightmares and identify a "monster" as a symbol of the traumatic event (Copeland, Keeler, Angold, & Costello, 2007). Due to Carl's chronic trauma exposure history, the researcher worked with Carl to create a timeline of his major life events. This activity further solidified that the separation from his mother was his primary traumatic event. He reported at 2-years old that he was happy and living with his mom and grandma. He reported that at 5-years old he moved to his biological father's house and he was upset. Lastly, themes around fixation on holidays were evident in his timeline. Carl reported at 9-years old he had fun at Easter and that his dad burning his Christmas tree when he was 8-years old was a significant life event. Despite further probing, he did not elaborate on the underlying root of this fixation. Carl's report about having fun with his father at Easter served as starting point for discussion around meaning-making. Carl was able to identify that although he was separated from his mother, and he did not want to live with his father, that recently he had had a nice holiday with each of his parents separately.

### **Pts Symptom Outcomes**

At baseline, Carl's UCLA PTSD-RI-5 Total score was a 50 (Cluster B symptoms, 14; Cluster C symptoms, 4; Cluster D symptoms, 16; Cluster E symptoms, 16; Dissociative Symptoms, 4). Please refer to Chapter Three, subsection, UCLA PTSD-RI-5 for a review of the

symptom clusters. Per the *DSM-5*, Carl met clinical criteria for a diagnosis of PTSD with: (a) one or more Category B symptoms present, (b) one or more Category C symptoms present, (c) two or more Category D symptoms present, and (d) two or more category E symptoms present. Additionally, his symptoms had lasted for greater than one month before the screening, and his symptoms were clinically causing significant distress or impairment. Lastly, he met criteria for a Dissociative Subtype. At post-intervention, Carl's UCLA PTSD-RI-5 Total score was a 13 (Cluster B symptoms, 4; Cluster C symptoms, 0; Cluster D symptoms, 4; Cluster E symptoms, 5; Dissociative Symptoms, 0). Carl's PTSD scale score decreased post-intervention (13) compared to baseline (50). Carl reported a 37-point decrease in his symptoms severity score post-intervention compared to baseline. Per the *DSM-5*, Carl no longer met criteria for a diagnosis of PTSD with a Dissociative Subtype post-intervention compared to baseline. When asked again to "provide a description of the trauma/loss type that is most bothersome," Carl shifted his response to "My mom told XX [mom's boyfriend] to change the baby then he threw the box."

### **Progress Monitoring: Daily Distress**

At baseline, Carl's daily rating for fear/distress (0 = Not at all scared or upset, 3 = a little bit scared or upset, 6 = pretty scared or upset, and 9 = really scared or upset) were: (a) B 1 = 0, (b) B2 = 1, and (c) B3 = 4. His median baseline score was a 1. At T1, his daily fear rating was 2. On T2, his daily fear rating was a 1. On T3, his daily fear rating was a 2. On T4, his daily fear rating was a 5. Carl has reported he had a behavioral incident on the bus and received an in-school detention on this day. On T5, T6, and T7 his daily fear ratings were a 1. Carl's baseline report of distress was so low a floor effect was present, and a change in symptoms was not able to be measured.

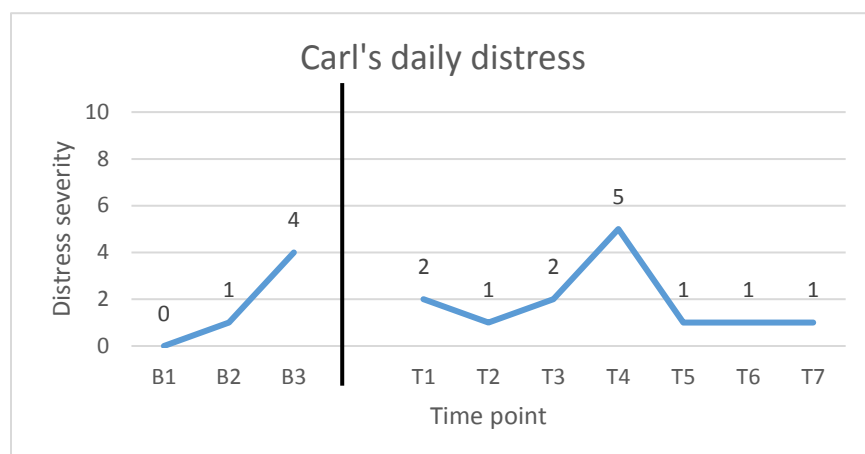


Figure 2. Carl's Baseline Report of Daily Distress

### Trauma-Related Symptomatology

At baseline, the TSCC-A validity scale for hyper-reporting was Borderline ( $T = 78$ ) which suggests that Carl may have been hyper-reporting his symptoms, and these results should be interpreted with caution. Compared to the same age and sex children, Carl endorsed Borderline symptoms for Anger ( $T = 60$ ) and Clinical symptoms for Anxiety ( $T = 74$ ), Depression ( $T = 78$ ), and PTS ( $T = 74$ ). Post-intervention, the TSCC-A validity scale for under-reporting was Clinical ( $T = 71$ ) which suggests that Carl may have been under-reporting his symptoms, and these results should also be interpreted with caution. Post-intervention compared to same age and sex children, Carl no longer met Borderline or Clinical criteria for any of the subscales on the measure. Carl's Anxiety score post-intervention ( $T = 58$ , Average) decreased compared to baseline ( $T = 74$ , Clinical). His Depression score post-intervention ( $T = 48$ , Average) decreased compared to baseline ( $T = 78$ , Clinical). Carl's Anger score post-intervention ( $T = 39$ , Average) decreased compared to baseline ( $T = 60$ , Borderline). Lastly, his PTS score post-intervention ( $T = 45$ , Average) decreased compared to baseline ( $T = 74$ , Clinical).

## **Depression Symptoms**

At baseline, compared to same age and sex children, Carl reported Elevated symptoms for the: (a) Total CDI 2 score (T = 66), Emotional Problems (T = 69), Negative Mood/Physical Symptoms (T = 66), and Negative Self Esteem (T = 67). Post-intervention, Carl's total CDI 2 score was Average (T = 57). He had an Elevated score for Emotional Problems (T = 69) and a Very Elevated score for Negative Mood/Physical symptoms (T = 74). Carl's Total CDI 2 score post-intervention (T = 57, Average) decreased compared to baseline (T = 66, Elevated). Additionally, his Negative Self-Esteem score post-intervention (T = 55, Average) decreased compared to baseline (T = 67, Elevated). Lastly, his Negative Mood/Physical Symptoms score post-intervention (T = 74, Very Elevated) increased compared to baseline (T = 66, Elevated).

## **Anxiety Symptoms**

At baseline, Carl's Total score on the SCARED was a 50 (i.e., a score of 25 or greater is considered clinical) which may have indicated the presence of an anxiety disorder. His scores may have also indicated the presence of a generalized anxiety disorder (12), separation anxiety disorder (16), and a social anxiety disorder (11). Post-intervention, Carl's Total score on the SCARED was a 16 which did not suggest the presence of an anxiety disorder. He did endorse symptoms that indicated the presence of separation anxiety (6), but he did report the continued presence of a potential separation anxiety disorder (6). Carl's Total SCARED score post-intervention (16) decreased compared to baseline (40). The decrease from post-intervention to baseline in his Total SCARED score was 34-points. Carl's social anxiety score post-intervention (4) decreased compared to baseline (11), and he no longer met criteria for the potential presence of the disorder. Similarly, Carl's generalized anxiety disorder score post-intervention (4)

decreased compared to baseline (12), and he no longer met criteria for the potential presence of the disorder. Please refer to the below table for Carl's baseline and post-intervention PTSD, anxiety, depression, and trauma related symptomatology scores.

Table 2. Carl's Baseline and Post-Intervention PTSD, Anxiety, Depression, and Trauma Related Symptomatology Scores

UCLA PTSD-RI-5 pre/post Total score	TSCC-A anxiety pre/post subscale T-score	TSCC-A depression pre/post subscale T-score	TSCC-A anger pre/post subscale T-score	TSCC-A PTS pre/post subscale T-score	TSCC-A dissociation pre/post subscale T-score	CD1 2 Total T-score	SCARED Total score
50/13	74/56	78/48	60/39	74/45	56/47	66/57	40/16

### Parent Report of Social-Emotional Functioning

At baseline, Carl's Competency scale scores were Clinical for the Social ( $T = 20$ , < 3rd percentile) and Activities ( $T = 26$ , < 3rd percentile) subscales, and his score was in the Borderline range for the School subscale. His Total Competence scale score was Clinical ( $T = 18$ , < 2nd percentile). At baseline, Carl's biological father indicated several problem areas associated with Carl. For the syndrome scale scores, Carl's scores were Borderline for Withdrawn/Depressed ( $T = 68$ , 97th percentile) and Clinical for Thought Problems ( $T = 80$ , > 97th percentile), Attention problems ( $T = 79$ , > 97th percentile), Rule Breaking Behavior ( $T = 79$ , > 97th percentile), and Aggressive Behavior ( $T = 94$ , > 97th percentile). Specific critical items that were endorsed included: (a) deliberately harms self or attempts suicide, (b) plays with own sex parts in public, and (c) physically attacks people. Carl's Total Problems ( $T = 76$ , > 98th percentile) and Externalizing Problems (83, > 98th percentile) scale scores were Clinical. Post-intervention, Carl's Competency scale scores were in the Clinical for both Social ( $T = 23$ , < 3rd

percentile) and Activities (T = 30, < 3rd percentile). His Total Competence scale score was Clinical (T = 24, < 2nd percentile). Post-intervention, for the syndrome scale scores, Carl's scores were Borderline for Withdrawn/Depressed (T = 68, 97th percentile) and Clinical for Thought Problems (T = 74, > 97th percentile), Attention problems (T = 79, > 97th percentile), Rule Breaking Behavior (T = 80, > 97th percentile), and Aggressive Behavior (T = 98, > 97th percentile). Carl's Total Problems (T = 78, > 98th percentile) and Externalizing Problems (85, > 98th percentile), and Internalizing Problems (T = 67, 96th percentile) scale scores were Clinical. Carl's School Competency score post-intervention (T = 40, 16th percentile, Average) improved compared to baseline (T = 33, 5th percentile, Borderline).

In open-ended questions, at baseline, Carl's father highlighted several areas that concerned him most about his son such as: (a) hyperactivity/attention problems, (b) behavioral problems (e.g., anger), and (c) social problems. Additionally, Carl's biological father provided specific information about concerns regarding anxious/obsessive/repetitive behaviors displayed by Carl. Carl's father noted that Carl was obsessive about Christmas and holiday decorations, engaged in nervous movements (e.g., finger counting, pinching face and eyebrows, and shaking foot), picking nose, skin, and other body parts, repeatedly flapping his arms, and had trouble sleeping. Lastly, Carl's father noted Carl stored-up candy, food, and Christmas lights/decoration. Carl's father noted similar concerns post-intervention; however, he did not describe a concern regarding Carl repeating acts over and over. He reported on some new areas of concern including Carl's fear of his mom's boyfriend and strange ideas in the form of sexual thoughts. At both baseline and post-intervention, Carl's father noted his enthusiasm for topics Carl enjoys and Carl's interest and willingness to be helpful to others.

### **Teacher Report of Social-Emotional Functioning**

At baseline, Carl's Adaptive Functioning scale score (Sum of Academic Performance, Working Hard, Behaving, Learning, and Happy subscales) was in the Clinical range ( $T = 35$ ,  $\leq 7$ th percentile). At baseline, Carl's classroom teacher indicated several problem areas associated with Carl. For the syndrome scale scores, Carl's scores were Borderline for Attention Problems ( $T = 68$ , 97th percentile) and Aggressive Behavior ( $T = 69$ , 97th percentile). Carl's score was Clinical for Thought Problems ( $T = 74$ ,  $> 97$ th percentile). Carl's Total Problems ( $T = 70$ , 98th percentile) and Externalizing Problems ( $T = 69$ , 97th percentile) scale scores were also Clinical. Post-intervention, Carl's Adaptive Functioning scale score (Sum of Academic Performance, Working Hard, Behaving, Learning, and Happy subscales) was Borderline ( $T = 38$ , 12th percentile). Post-intervention, Carl's syndrome scale scores were Borderline for Aggressive Behavior ( $T = 69$ , 97th percentile) and Clinical for Thought Problems ( $T = 81$ ,  $> 97$ th percentile). Carl's Total Problems ( $T = 69$ , 97th percentile) and Externalizing Problems ( $T = 69$ , 97th percentile) scale scores were Clinical. Post-intervention compared to baseline, Carl's teacher reported a reduction in his School Competency difficulties from Clinical ( $T = 35$ , 7th percentile) to Borderline ( $T = 38$ , 38th percentile) and a reduction in his Attention Problems from Borderline ( $T = 68$ , 97th percentile) to Average ( $T = 62$ , 89th percentile).

In open-ended questions, at baseline, Carl's teacher reported several areas that concerned her most about Carl. Carl's teacher emphasized Carl's lack of school work completion, oppositionality (e.g., holding his breath when upset), conduct problems (e.g., damaging property and physically violent), and resistance to being accountable for his behavior. Additionally, she noted concerns with obsessive-compulsive behaviors/thoughts and anxiety (e.g., pulling eyebrow

hairs out, flapping his arms, and rigid expectation of adherence to schedules and routines). Post-intervention, Carl's teacher noted similar concerns reported at baseline with the addition of sexualized behaviors. Specifically, Carl asked to rub a girl's chest on the school bus. Lastly, at both baseline and post-intervention, the teacher noted Carl's behaviors and demeanor were mostly dependent on if he was medicated. She also noted that Carl was social and outgoing/enthusiastic.

At baseline, Carl's scores on the SDQ-T were Very High for Emotional Problems (6), Conduct Problems (5), and Hyperactivity (10). Carl's score for Peer Relationship Problems was High (5). Carl's Total Problem score was Very High (26). Carl's Prosocial score, at baseline, was Very Low (4). Post-intervention, Carl's score for Emotional Problems was Average (2). His score for Conduct Problems was High (4), and his score for Hyperactivity was Very High. Carl's Total Problem score was Very High (20). His Prosocial Score was Average (8). From baseline (6) compared to post-intervention (2), Carl's teacher reported a reduction in his Emotional Problems from High to Average. Post-intervention (4, High) compared to baseline (5, Very High), Carl's teacher reported a reduction in his Conduct Problems. Lastly, post-intervention (8, Average) compared to baseline (4, Low), Carl's teacher reported an increase in his Prosocial score.

### **Grades, Attendance, and Behavioral Data**

For the 2017-2018 school year, Carl was absent one day and tardy one day with a 98.8% (161/163) attendance rate. Carl had one in school suspension for making a sexually inappropriate comment and gesture to a female peer. Carl's school does not use a typical grading system but instead reports on if the student is meeting standard expectations. At baseline, Carl's ELA skills



were developing or mastery for all relevant standards (e.g., fluency, writing, and language skills). Post-intervention compared to baseline, Carl's writing skills moved from developing to mastery. His other ELA skills remained consistent. For math, Carl's skills were developing for all relevant standards (e.g., numbers and operations, mathematical reasoning, and measurement). Post-intervention compared to baseline, Carl experienced growth in several math areas (i.e., place value understanding, representing and interpreting data, and geometric measurement) from developing to mastery.

### **Social Validity**

For the self-report student survey, Carl reported that he strongly agreed with the statements: (a) This intervention has helped me deal with the trauma/stress I experienced, (b) I learned helpful skills and techniques that I can use in the future, (c) I would suggest this intervention to a friend if they need the same kind of help, and (d) I feel comfortable and safe during the intervention sessions. In open-ended questions, Carl noted he enjoyed the relaxation strategies and distraction strategies taught during the intervention sessions. He also noted he learned how to control himself, relax, and recognize how his body feels.

For the self-report teacher survey, the classroom teacher indicated she was satisfied with the: (a) limit of top priority behaviors, (b) provision of psychoeducation on trauma, (c) provision of relaxation and coping strategies, (d) inclusion in treatment planning, and (e) updates received about the treatment progress of Carl. In open-ended questions, the teacher noted that she liked that, "the student was receiving help with coping strategies." She also noted that it was difficult to be involved in the intervention at times due to confidentiality parameters.

### **School-Based Mandated Reporting and Crisis Prevention and Intervention Response**

A crisis hotline that handles mental health crisis calls for youth was called in response to the Carl's homicidal threats at the mid-point of treatment. The crisis hotline sent a local crisis mental health services response worker to assess Carl. He was assessed, and it was determined he was not an immediate threat. The option of in-home family counseling and behavioral management treatment was offered to the family. Additionally, due to suspicion of excessive corporal punishment in Carl's biological father's home, and the suspicion of exposure to adult sexual behavior and domestic violence in Carl's biological mother's home, the researcher submitted a report to the Department of Child and Family Services (DCFS). These allegations were unfounded, but they served as an opportunity for the researcher to discuss parent management techniques with his step-mother and disclose to his step-mother general concerns about his safety when visiting his biological mother's home. Lastly, Carl's trauma narrative centered around his biological mother. Because of the continuous relationship his father and step-mother had with Carl's biological mother, it was determined it would not be therapeutic for him to share with them his trauma narrative.

### **Case Study 2: Allison, 6th Grade, 12-year-old Female**

#### **Fidelity**

Allison received eight sessions of TF-CBT that followed a sequential and iterative process. Each session was 45-minutes in length. The sessions started during the second semester of the school year (end of 3rd quarter throughout the 4th quarter). Session 1 included: (a) administration of assessment measures (i.e., the Fear Thermometer was administered at the beginning of each session); (b) provision of psychoeducation about trauma(s), reactions,

reminders and treatment; and (c) practice of individualized relaxation skills. The psychoeducation component included reviewing several common reactions to stress and trauma, and Allison identified which reactions applied to her. Allison also participated in a guided meditation. After multiple sessions, she continued to express dislike for this form of relaxation; therefore, alternative forms of relaxation were used (e.g., use of a sand tray and quiet/meditative drawing) that Allison self-reported as calming. Session 2 included provision of psychoeducation about trauma types, trauma reactions, trauma reminders, and treatment content. Additionally, Allison practiced individualized relaxation skills. The rationale for TF-CBT was also discussed during Session 2. The metaphor of cleaning a wound when explaining the rationale for engaging in therapy for trauma exposure was used (Cohen et al., 2017). Because Allison identified traumatic loss as her primary traumatic event, psychoeducation on trauma reactions specific to traumatic grief were discussed. The book by Goodman, Miller, and Cohen (2011), *Ready to Remember: Jeremy's Journey of Hope and Healing* was read to facilitate this discussion. Session 3 consisted of provision of individualized relaxation skills and provision of affect expression, affect identification, and affect modulation skills. Allison was instructed to draw herself. Using colors to represent various emotions she was asked to identify where in her body she feels specific emotions. Allison identified four emotions (i.e., anger, sad, scared, and stressed), and she indicated she felt all of them only in her head. Lastly, she was asked to list next to her drawing what she liked about herself. She struggled with this task, but after probing she listed, "I get good grades" and "I work hard." Session 4 consisted of the provision of individualized relaxation skills and introduction to the cognitive triangle/optimistic thinking. The Triangle of Life application was used to reinforce/teach basic CBT principles (Mannarino & Cohen, 2015).

Session 5 consisted of: (a) continued introduction to the cognitive triangle, (b) continued affect expression identification and modulation skills, (c) the provision of individualized relaxation skills, and (d) the introduction to the creation of the trauma narrative. Please refer to the trauma narrative portion of this section for a detailed description the construction and content of Allison's trauma narrative. Session 6 and Session 7 consisted of continued development of the trauma narrative and provision of individualized relaxation skills. Lastly, Session 8 consisted of the provision of individualized relaxation skills and addressing personal safety. Specifically, Allison expressed fear about being kidnapped by her biological mother. Allison engaged in mandated supervised visits with her biological mother once a month, and this was a source of significant distress due to a history of her biological mother allegedly physically abusing her. The likelihood of this fear was difficult to determine; therefore, the researcher balanced safety planning (e.g., what Allison should do if in danger) with discussions in which Allison reflected on the fact that her foster mother was present during these visits and would do anything she could to protect Allison. Please refer to the below figure for the frequency of PRACTICE components.

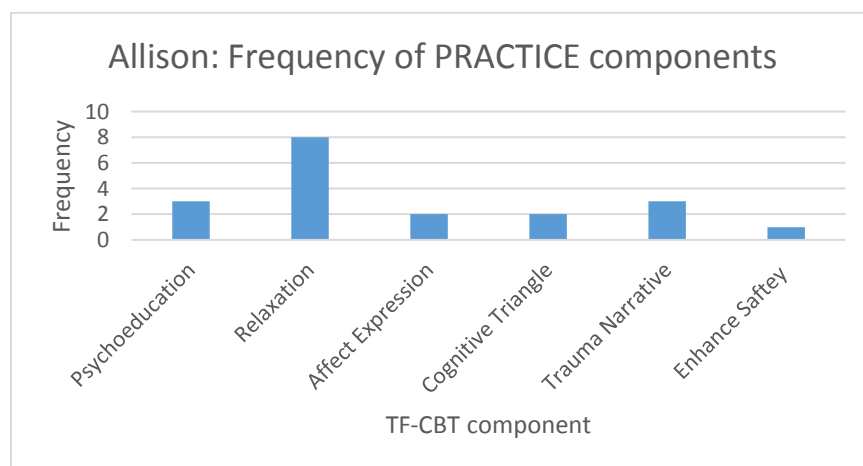


Figure 3. Frequency of PRACTICE Components (Allison)

**School-Based Stakeholder Participation: Teacher**

School-based treatment included consulting with Allison's school-based social worker and working with her foster mother and classroom teacher. Two formalized face-to-face meetings with Allison's classroom teacher were conducted. Additionally, an informal phone call for consultation purposes was also conducted. The first meeting consisted of an informal consultation call with Allison's classroom teacher. Allison's teacher expressed concern about Allison's affect post-administration of the baseline measures. During the phone call, the researcher suggested relaxation techniques the teacher could encourage Allison to use in the classroom. The researcher suggested that Allison be encouraged by her teacher to journal about her thoughts and feelings. A plan for prompt and routine checking of the journal by the school social worker and the researcher was developed. The researcher also provided psychoeducation about how trauma symptoms are expressed in the classroom. The researcher provided the teacher with the NCTSN Child Trauma Toolkit for Educators (NCTSN, 2008). Additionally, the researcher provided the teacher with guidance on mandated reporting policies and how to respond to suicidal comments made in the classroom. The teacher reported that she often talked with Allison about her distress and trauma history; therefore, the researcher provided information about self-care for the teacher and setting appropriate boundaries. The second teacher meeting served as an avenue to reiterate the information discussed in the first phone call. The final teacher meeting consisted of the researcher providing an update on Allison's general progress, gaining insight into how Allison's behavior/affect was in the classroom post-intervention, discussing appropriate teacher-student boundaries, and brainstorming as a team end of the school year referral and community engagement opportunities for Allison.

**School-Based Stakeholder Participation: School Psychologist/Mental Health Professional and Administrator**

The school social worker served as a liaison between the researcher and the school and the researcher and the Allison's family in the initial relationship building phase of the process. Throughout the intervention, the school social work served as a consultant. Frequent check-ins were conducted, and the social worker was involved in any instances where risk of harm was a concern. Specifically, Allison endorsed mild suicide ideation at baseline and moderate suicide ideation post-intervention.

**School-Based Stakeholder Participation: Parent/Guardian**

Interaction with Allison's foster mother (i.e., biological aunt) was less formalized. Although, she consented to participate in the intervention and was open to receiving information, she was not actively engaged in the process. Several phone calls were made home to update her on treatment. She typically received the information and reported she had no questions. She was also called several times related to suicide ideation endorsed by Allison. Allison reported that post the researcher's initial discussion with her foster mother about this topic that Allison had been reprimanded and punished for endorsing suicidal thoughts. Post-intervention, when discussing this topic with Allison's foster mother, the researcher framed her concern to highlight that the team thought Allison was brave to provide this information and she was not in trouble, but that the team wanted to make sure she was safe. During the last phone call with Allison's mother, she reported to the researcher that Allison had received her first in-home counseling session/follow-up services that were a result of the crisis call made by the researcher. Her foster mother reported that the experiences had been positive. The trauma narrative was not shared with

the Allison's foster mother because Allison reported that she did not feel comfortable sharing it with her parent. Instead, Allison was coached to share the narrative with her counselor that she initiated services with post-TF-CBT.

### **Trauma Exposure History and Trauma Narrative**

Allison's trauma history was orally assessed via a clinical interview using the UCLA PTSD-RI-5's trauma/loss history screening questions. Allison endorsed several traumatic experiences including: (a) neglect (i.e., biological mother), (b) impaired caregiver (i.e., biological mother), (c) bereavement (i.e., sudden death of biological father from a heart attack at 4 years of age, uncle from cancer, and cousin from a suicide), (d) separation, (e) bullying (i.e., school-based), and (f) witnessed suicide (i.e., witnessed attempted suicide by older sister). The trauma exposures were consistently spread throughout her lifespan with the earliest as young as the age 4 with the sudden death of her father. The most recent trauma exposure included the suicide of a cousin one-month before the start of the intervention. The UCLA PTSD-RI-5 asked Allison to, "provide a description of the trauma/loss type that is most bothersome." Allison reported, "The thing that mostly bothers me is my dad dying. I didn't really know him and what he looked like. I just want him here, so he can see how well I have achieved life so far."

The traumatic loss of her father at 4-years old was used as the primary trauma to focus on throughout treatment and for the topic of the trauma narrative. Allison was reluctant to respond to the prompts associated with the creation of the trauma narrative (e.g., About Me). Allison's initial introduction to her trauma narrative included basic biographical information about herself. In response to memories about her dad or memories before her dad died, she stated she did not remember anything before her dad died. After probes and words of encouragement for the

trauma details section, she wrote, “My dad died of a heart attack. This is all they told me. He died on January 20th, 2010. I was 4 years old.” Allison was resistant to the making meaning component of the intervention. She insisted that she did not learn anything from the experience and she had no advice to give anyone in a similar situation. The researcher was careful to encourage, but not push Allison to work on her trauma narrative. Due to resistance in working on a structured narrative, the researcher suggested Allison write a letter to her dad addressing these topics. Evidence of meaning-making in her letter was present. For example, Allison noted how well her brother and sisters are doing and how well her aunt is taking care of them. She also noted that she had found out that her bother was not her biological brother, but she acknowledged that her dad wanted to care for him, and he was being cared for now by Allison’s aunt. Several other themes emerged from the letter related to affective expression including feelings of ambivalence, anger, and hope.

### **Pts Symptoms**

At baseline, Allison’s UCLA PTSD-RI-5 Total score was a 63 (Cluster B symptoms, 19; Cluster C symptoms, 8; Cluster D symptoms, 21; Cluster E, symptoms 15; Dissociative Symptoms, 15). Per the *DSM-5* Allison met Clinical criteria for a diagnosis of PTSD with: (a) one or more Category B symptoms present, (b) one or more Category C symptoms present, (c) two or more Category D symptoms present, and (d) two or more category E symptoms present. Additionally, her symptoms had lasted for greater than one month before the screening, and her symptoms were clinically causing significant distress or impairment. Lastly, she met criteria for a Dissociative Subtype. Post-intervention, Allison’s UCLA PTSD-RI-5 Total score was a 65 (Cluster B symptoms, 18; Cluster C symptoms, 8; Cluster D symptoms, 24; Cluster E symptoms,



15; Dissociative symptoms, 15). Allison's PTSD symptom severity score post-intervention (65) increased compared to baseline (63). Allison reported a 2-point increase in her symptom severity score post-intervention compared to baseline. Per the *DSM-5* Allison continued to meet criteria for a diagnosis of PTSD with a Dissociative Subtype. When asked again to, "provide a description of the trauma/loss type that is most bothersome," Allison continued to endorse the death of her father as her most bothersome trauma.

### **Progress Monitoring: Daily Distress**

At baseline, Allison's daily rating for fear/distress (0 = Not at all scared or upset, 3 = a little bit scared or upset, 6 = pretty scared or upset, and 9 = really scared or upset) were: (a) B1 = 5.5, (b) B2 = 4, and (c) B3 = 1. Her median baseline score was a 4. Her daily distress during the intervention were: T1 = 5, T2 = 10, T3 = 7, T4 = 9, T5 = 8, T6 = 3, T7 = 2, T8 = 8, T9 = 4, T10 = 7, T11 = 3, T12 = 6, T13 = 2, T14 = 5, T15 = 5, T16 = 7, T17 = 4, T18 = 3, T19 = 2, T20 = 7, T21 = 1, T22 = 3, T23 = 7, T24 = 6, T25 = 4, T26 = 10, T27 = 7, T28 = 7, T29 = 2, T30 = 5, T31 = 3, T32 = 4, T33 = 2, T34 = 6, T35 = 8. The effect size is 31% or ineffective.

### **Trauma-Related Symptomatology**

At baseline, the TSCC-A validity scale for hyper-reporting was Borderline (T = 83) which suggests that Allison may have been hyper-reporting and these results should be interpreted with caution. Compared to same age and sex children Allison endorsed Borderline symptoms for Dissociation-Fantasy (T = 62) and Clinical symptoms for Anxiety (T = 89), Depression (T = 84), PTS symptoms (T = 74), Dissociation (T = 71), and Dissociation Overt (T = 73). Post-intervention, the TSCC-A validity scale for hyper-reporting was Clinical (T  $\geq$  111) which suggests that Allison may have been hyper-reporting her symptoms and these results

should be interpreted with caution. Compared to same age and sex children Allison endorsed Clinical symptoms for Anxiety ( $T = 89$ ), Depression ( $T = 86$ ), Anger ( $T = 67$ ), PTS symptoms ( $T = 78$ ), Dissociation ( $T = 93$ ), and Dissociation-Overt ( $T = 93$ ), and Dissociation-Fantasy ( $T = 82$ ). Post-intervention, ( $T \geq 111$ , Clinical) compared to baseline ( $T = 83$ , Borderline) Allison's hyper-reporting scale increased. Additionally, her Anger subscale score increased from Average ( $T = 59$ ) at baseline to Clinical ( $T = 67$ ) post-intervention. Her Dissociation-Fantasy increased from Borderline at baseline ( $T = 62$ ) to Clinical ( $T = 82$ ) post-intervention. However, these results should be interpreted with caution because at both baseline and post-intervention the validity scale scores for hyper-reporting were elevated.

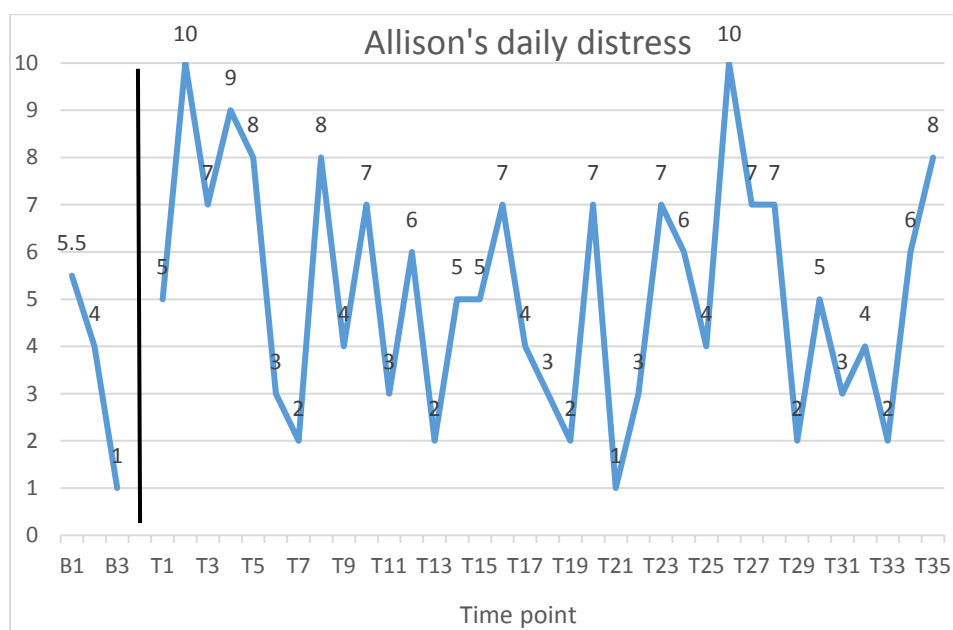


Figure 4. Allison's Baseline Report of Daily Distress

### Depression Symptoms

At baseline, compared to same age and sex children, Allison reported Very Elevated symptoms for the: (a) Total CDI 2 score ( $T > 90$ ), Emotional Problems ( $T > 90$ ), Negative

Mood/Physical Symptoms ( $T > 90$ ), and Negative Self Esteem ( $T = 83$ ), Functional Problems ( $T = 81$ ), Ineffectiveness ( $T = 81$ ), and Interpersonal Problems ( $T = 79$ ). Post-intervention, Allison's total CDI 2 score was Very Elevated ( $T > 90$ ). Allison reported Very Elevated symptoms for Emotional Problems ( $T > 90$ ), Negative Mood/Physical Symptoms ( $T > 90$ ), and Negative Self Esteem ( $T > 90$ ), Functional Problems ( $T > 90$ ), Ineffectiveness ( $T = 81$ ), and Interpersonal Problems ( $T > 90$ ). There were no significant changes in scores post-intervention compared to baseline.

### **Anxiety Symptoms**

At baseline, Allison's Total score on the SCARED was a 59 which may indicate the presence of an anxiety disorder. Her scores may also indicate the presence of a panic disorder (18), generalized anxiety disorder (14), separation anxiety disorder (10), and a social anxiety disorder (12), and significant school avoidance (5). Post-intervention, Allison's Total score on the SCARED was a 66 which may indicate the presence of an anxiety disorder. Her scores may also indicate the presence of a panic disorder (20), generalized anxiety disorder (16), separation anxiety (12), and a social anxiety disorder (12), and significant school avoidance (6). Post-intervention, Allison's Total score increased from a 59 to a 66 at baseline. Both scores may indicate the presence of an anxiety disorder. Please refer to the below table for Allison's baseline and post-intervention PTSD, anxiety, depression, and trauma related symptomatology scores.

Table 3. Allison's Baseline and Post-Intervention PTSD, Anxiety, Depression, and Trauma Related Symptomatology Scores

UCLA PTSD-RI-5 pre/post Total score	TSCC-A anxiety pre/post subscale T-score	TSCC-A depression pre/post subscale T-score	TSCC-A anger pre/post subscale T-score	TSCC-A PTS pre/post subscale T-score	TSCC-A dissociation pre/post subscale T-score	CDI 2 Total T-score	SCARED Total score
63/65	89/89	84/86	59/67	74/78	71/93	>90/>90	59/66

### Parent Report of Social-Emotional Functioning

At baseline, Allison's Competence scale score for Activities (T = 20, < 3rd percentile) was Clinical. Additionally, her Total Competence scale score (T = 23, < 2nd percentile; comprised of Activities, Social, and School subscales) was Clinical. At baseline, Allison's foster mother did not indicate any Borderline or Clinically significant syndrome scale scores. Post-intervention, Allison's foster mother did not complete or return the CBCL.

### Teacher Report of Social-Emotional Functioning

At baseline, Allison's Total Competence scale score (T = 49, 20th percentile; comprised of Activities, Social, and School subscales) was Average. At baseline, Allison's classroom teacher reported her Anxious/Depressed scale (T = 70, > 9th percentile) was Clinical, and her Thought Problems subscale score (T = 65, 93rd percentile) was Borderline. At baseline, her Internalizing Problem subscale (T = 69, 97th percentile) was Clinical, and her Total Problems scale score (T = 60, 84th percentile) was Borderline. Post-intervention, Allison's Total Competence scale score (T = 38, 12th percentile) was Borderline. Allison's Anxious/Depressed scale (T = 67, 96th percentile) and Withdrawn/Depressed scale (T = 66, 95th percentile) were Borderline. Post-intervention, Allison's Internalizing Problems scale (T = 67, 96th percentile)

was Clinical. Post-intervention, (T = 67, Borderline) compared to baseline (T = 70, Clinical) Allison's teacher reported a decrease in her Anxious/Depressed scale score. Post-intervention, Allison's Internalizing Problems scale (T = 67, 96th percentile) was Clinical. Post-intervention (T = 55, Average) compared to baseline (T = 60, Borderline), Allison's teacher reported a decrease in her Total Problems scale score. Post-intervention (T = 66, Borderline) compared to baseline (T = 63, Average), Allison's teacher reported an increase in her Withdrawn/Depressed symptoms. Additionally, post-intervention (T = 38, Borderline) compared to baseline (T = 49, Average), Allison's teacher reported a decrease in her Total Competency scale score.

At baseline, through open-ended questions, Allison's teacher noted several areas of concern including Allison's self-esteem and concerns related directly to her trauma exposure history. Allison's teacher reported she thinks she, "caused her father's death." Additionally, the teacher reported that Allison fears interactions with her mother and is fearful that her mother will kidnap her. For this reason, the teacher noted she was concerned about Allison's physical safety. Allison's teacher also noted specific strengths including Allison's dedication to work hard in school and the gratitude. Post-intervention, Allison's teacher continued to note concerns about her physical safety and that Allison fears being kidnapped by her biological mother. Additional concerns the teacher noted post-intervention, but she did mention at baseline, were comments that Allison made about suicide ideation and her overall sad demeanor. Post-intervention, her teacher continued to note that Allison is hard working. Allison's teacher noted, "Allison once told me she works hard in school because she does not want what's going on in her life to be an excuse to not get good grades." Allison's teacher also noted she is helpful, punctual, and polite. Lastly, Allison's teacher noted that she has a positive relationship with Allison.

At baseline, on the SDQ-T Allison's scores were Very High for Emotional Problems (7) and Slightly Raised for Peer Relationship Problems (4). Her Total Difficulties scale score was Average (11). Her Prosocial score was slightly lowered (7). Post-intervention, on the SDQ-T Allison's scores were Very High for Peer Problems (7) and High for Emotional Problems (5). Her Prosocial score was Average. Her Total Difficulties scale score was Slightly Raised. From pre to post-intervention, Allison's teacher reported an increase in her Peer Problems from baseline (4 or Slightly Raised) to post-intervention (7 or Very High). She reported a decrease in her emotional problems from baseline (7 or Very High) to post-intervention (5 or High). Grades, attendance, and behavioral data. For the second semester of the 2017-2018 school year Allison had no absences or tardies, and she did not have any disciplinary referrals. At baseline, Allison's median ELA grade was a 100%. Her ELA grades slightly decreased throughout the duration of the intervention from mostly 100% to mostly in the 80-90%. Please refer to the below figure for Allison's baseline and intervention ELA grades.

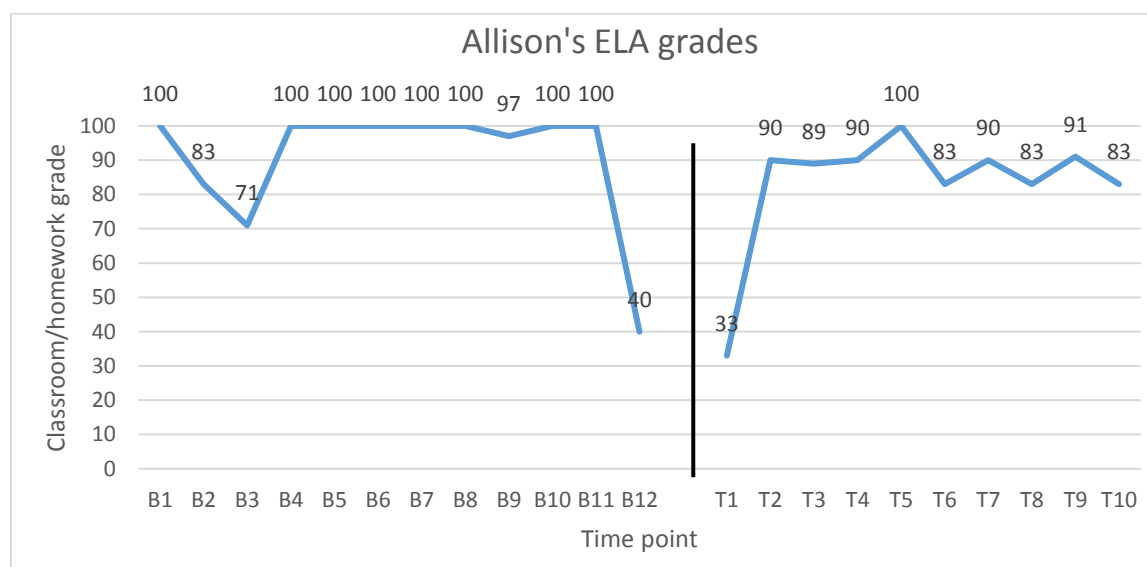


Figure 5. Allison's Baseline and Intervention ELA Grades

At baseline, Allison's median math grade was a 96%. Allison's percentage of non-overlapping data for her math grades was a 75%, suggesting the intervention was moderately effective. Please refer to the below figure for Allison's baseline and intervention math grades.

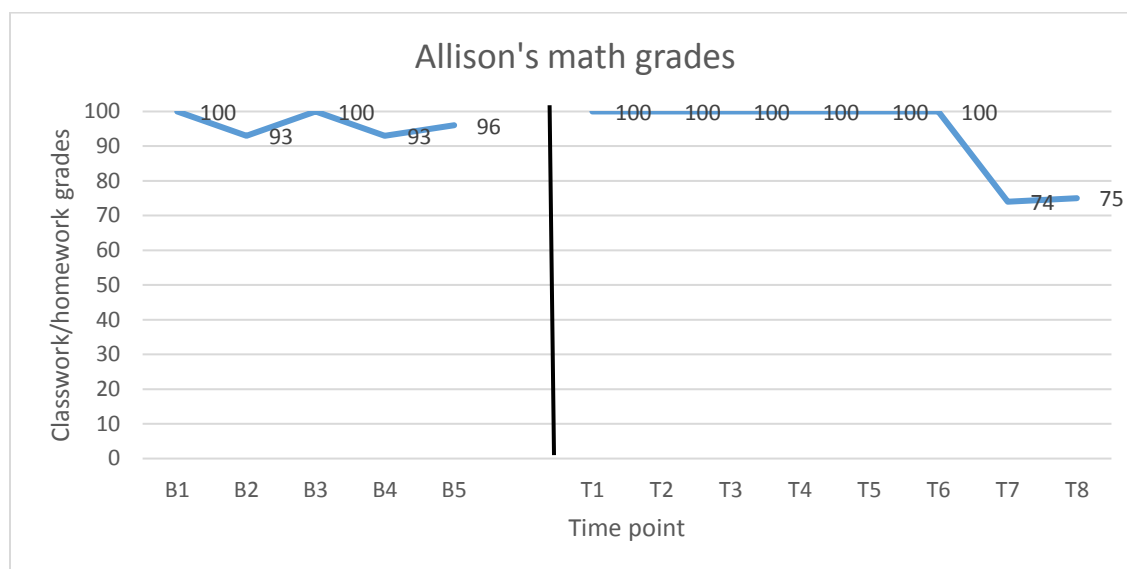


Figure 6. Allison's Baseline and Intervention Math Grades

### Social Validity

For the student survey, Allison self-reported that she strongly agreed with the statements: I learned helpful skills and techniques that I can use in the future, and I would suggest this intervention to a friend if they needed the same kind of help. She reported that she agreed with the statements: This intervention has helped me to deal with the trauma/stress I experienced, and I feel comfortable and safe during the intervention sessions. In an open-ended response about what Allison liked best about participating in the intervention, Allison reported she liked that she had someone to talk to during the intervention.

For the teacher survey, Allison's teacher reported she was very satisfied with the updates she received about Allison's treatment progress. She reported she was satisfied with the: (a)

limiting of top priority behaviors, (b) provision of psychoeducation for trauma, (c) provision of relaxation and coping strategies to use in the classroom, and (d) inclusion of her in treatment planning. Lastly, the teacher reported that she did not feel there was a significant teacher component for this case, but she did not know how the teacher component could be improved because this was a difficult case.

### **School-Based Mandated Reporting and Crisis Prevention and Intervention Response**

Post-intervention, in consultation with the school social worker, a crisis hotline that handles mental health crisis calls for youth was called. The crisis hotline sent a local crisis mental health service provider to assess Allison. The assessment was conducted in the school setting with the researcher present, and it was determined that Allison was not at immediate risk, but she was provided follow-up counseling services by the crisis response agency. The school principal approved of the research study, but he preferred to defer to the school social worker in implementation and monitoring of the study. The school principal was directly notified by the researcher when there was a risk of threat.

### **Case Study 3: Katie, 6th Grade, 11-year-old Female**

#### **Fidelity**

Katie received eight sessions of TF-CBT that followed a sequential and iterative process. Each session was 45-minutes in length except for Session 5 due to the state testing schedule. Katie received the intervention during the spring school semester (i.e., end of 3rd quarter and through 4th quarter). Session 1 included: (a) administration of assessment measures (i.e., at the beginning of each session the Fear Thermometer was administered to assess Katie's daily distress), (b) provision of psychoeducation about trauma reactions and reminders, and (c)



provision of individualized relaxation skills. The initial psychoeducation activity included having Katie read a list of common reactions to stress and trauma and identify which reactions applied to her. She was encouraged to share this information with her supportive caregiver (i.e., biological father). Katie was responsive to guided meditation techniques and calming/distraction techniques such as drawing quietly. Session 2 consisted of continued psychoeducation about traumas types and reactions to trauma exposure. The session also focused on individualized relaxation skills. Specifically, because of Katie's exposure to her mother's repeated attempted suicides, Katie was provided general information about suicidality and depression. Additionally, the rationale for TF-CBT and content was discussed. The metaphor of cleaning a wound when explaining the rationale for engaging in therapy for trauma exposure was used (Cohen et al., 2017). Session 3 consisted of continued psychoeducation on trauma exposure reactions and introduction to affect expression, affect identification, and affect modulation skills. For the affect expression and identification component, Katie was instructed to draw a picture of herself and color-code various emotions. She was then instructed to indicate with a color where in her body she feels each emotion. Katie was also instructed to list several things that she likes about herself. She identified several affirmations (e.g., I try my hardest, I am not falling behind or running late, and I am the one thing in life I can control) with relative ease. Session 5 consisted of provision of individualized relaxation skills and introduction to the cognitive triangle/optimistic thinking. The Cognitive Triangle application was used to reinforce basic CBT concepts (Mannarino & Cohen, 2015). Session 6 consisted of: (a) provision of individualized relaxation skills; (b) continued exposure to affect expression, affect identification and affect modulation; and (c) introduction to the development of the trauma narrative. Please refer to the

trauma narrative portion of this section for information about the construction and content of Katie's trauma narrative. Session 7 continued the development of the trauma narrative, use of individualized relaxation techniques. Assessment concerning engagement (e.g., using the Fear Thermometer throughout the trauma narrative development to determine and monitor level or arousal) was also utilized. Session 8 consisted of discussion about healthy boundaries, finalization of the trauma narrative, cognitive processing of maladaptive thoughts, and reading of the narrative. Restructuring of maladaptive thoughts included fact checking about the impact on Katie if her mother was not awarded full custody of her. Additionally, healthy boundaries regarding involvement in parental conflict were discussed. Please refer to the below figure for the frequency of PRACTICE components.

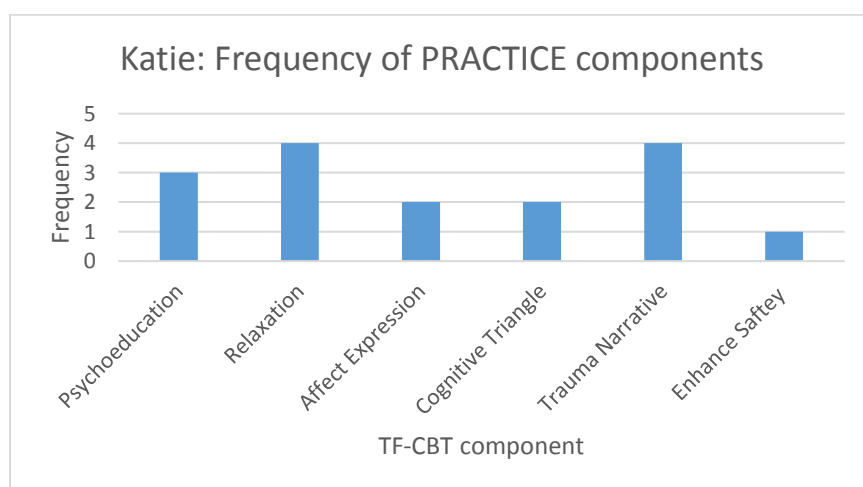


Figure 7. Frequency of PRACTICE Components (Katie)

### **School-Based Stakeholder Participation: Teacher**

School-based treatment also included consulting with Katie's biological father, school social worker, classroom teacher, and school principal. The initial teacher meeting consisted of providing the teacher with psychoeducation on trauma exposure and related symptomatology.

Specifically, the NCTSN Child Trauma Toolkit for Educators (2008) was used as a document to guide the conversation. The meeting also included a discussion about the content of the intervention. Additionally, the teacher's input about Katie's social-emotional well-being and academic performance was sought. A post-intervention teacher meeting was also conducted. The teacher meeting consisted of providing the teacher an update on Katie's progress, gaining input from the teacher on Katie's progress social-emotionally and academically in the classroom, and providing the teacher additional resources about trauma-sensitive classroom and relaxation techniques to use with the students. The teacher expressed an overly negative view of Katie; therefore, reframing techniques were used. Lastly, boundaries were discussed with the teacher. Specifically, it was discussed how the teacher could be supportive while avoiding processing the trauma or trauma history with Katie.

#### **School-Based Stakeholder Participation: School Psychologist/Mental Health Professional and Administrator**

The school social worker was actively involved in the intervention process. Frequent check-ins to provide updates on Katie's progress (i.e., bi-weekly in person and via email) were conducted. The school social worker provided direct consultation to the researcher, and she also provided ideas and solutions to challenges that arose during treatment. Lastly, she was actively involved in providing guidance during crisis situations. For example, Katie expressed concern about a suicidal friend, and the social worker worked with the school principal to directly address this issue. The school principal approved of the research study. He preferred to defer to the school social worker in implementation and monitoring of the study. He was notified when there was a risk of threat.

### **School-Based Stakeholder Participation: Parent/Guardian**

A parent meeting was conducted. Katie's biological father did not attend two scheduled meetings. He was able to meet with the researcher on the 3rd attempt. The researcher reviewed Katie's specific symptom severity scores from the administered assessment measures and reviewed specific trauma-related symptoms that Katie had endorsed. The researcher also elicited specific information about the parent's concerns. Katie's father was concerned about Katie's interaction with certain peers and a discussion about boundary setting was integrated into the intervention. Additionally, the parent became emotional when the researcher reviewed Katie's symptom severity scores. The researcher was able to highlight to the parent that he had also experienced some of these potentially traumatic events and self-care was discussed in-depth.

### **Trauma Exposure History and Trauma Narrative**

Katie's trauma history was orally assessed via a clinical interview using the UCLA PTSD-RI-5's trauma/loss history screening questions. Katie endorsed several potential traumatic experiences including: (a) domestic violence (i.e., throwing things and verbally abusive threatening between biological parents), (b) psychological abuse (i.e., maternal grandmother frequently told Katie she was overweight and unintelligent), (c) impaired caregiver (i.e., biological mothers multiple suicide attempts and biological father alcohol use), (d) separation (i.e., mom psychiatrically hospitalized three times in the year prior to start of intervention), (e) bullying (i.e., relational bullying at school 2-4th grade), and (f) witnessed suicide attempt (i.e., heard about mom's suicide attempts). The UCLA PTSD-RI-5 asked Katie to, "provide a description of the trauma/loss type that is most bothersome." Katie reported, "When my mom

tried to OD on sleeping meds and went to the hospital for a few months.” This event took place one-year before her enrollment in the study.

Katie expressed anxiety in participating in the trauma narrative process, but she willingly engaged in the process. She wrote and then typed her narrative. Katie followed an outline that included essential trauma narrative components. In the about me section of the narrative, several themes emerged. Katie tentatively disclosed her primary trauma, “My parents splitting.” She also mentioned depression and depression symptoms on two occasions. Lastly, she self-disclosed her sexuality. She also mentioned several prosocial qualities including enjoying spending time with friends and family. When asked to discuss memories before the trauma Katie discussed several difficult memories that included a theme around loss and death (e.g., loss/death of several pets). Katie also wrote about some positive memories including a trip with her family before her parents separating. In the trauma details section, Katie discussed her mother’s suicide attempt (i.e., prior attempts had been made), subsequent parental separation, and parental custody dispute. Several themes emerged including feelings of being scared and suspicious. She also reported feelings of depression when thinking about the event and attempts not to think or avoid thinking about the event. In the meaning-making section Katie reported, “Some advice I’d give to people experiencing depressing events is to not think about it a lot but think about it so the next time something comes up, you know how to handle it.” She also reported that a person should utilize their resources to help them handle the situation.

### **Pts Symptoms**

At baseline, Katie’s UCLA PTSD-RI-5 Total score was a 51 (Cluster B symptoms, 15; Cluster C symptoms, 8; Cluster D symptoms, 20; Cluster E symptoms, 8; and Dissociative

Symptoms, 6). Per the *DSM-5*, Katie met clinical criteria for a diagnosis of PTSD in all but one area: (a) one or more Category B symptoms present, (b) one or more Category C symptoms present, (c) two or more Category D symptoms present, and (d) two or more category E symptoms present [only one symptom present in this category]. Additionally, her symptoms had lasted for greater than one month before the screening, and her symptoms were clinically causing significant distress or impairment. Lastly, she also met criteria for a Dissociative Subtype. At post-intervention, Katie's UCLA PTSD-RI-5 Total score was a 36 (Cluster B symptoms, 6; Cluster C symptoms, 6; Cluster D symptoms, 16; Cluster E symptoms, 8; and Dissociative Symptoms, 1). At post-intervention (36) compared to baseline (51), Katie's Total score decreased by 15-points. Although Katie reported a reduction in overall symptom severity, post-intervention she did meet criteria for a diagnosis of PTSD, but without a dissociative subtype. Post-intervention, Katie continued to endorse her mom's suicide attempt as her most bothersome trauma exposure event.

### **Progress Monitoring: Daily Distress**

Katie's daily distress rating at baseline were: (a) B1 = 0, (b) B2 = 2, and (c) B3 = 0. Her baseline median daily distress score was a 2. Katie's daily distress scores during the intervention were: T1 = 0, T2 = 0, T3 = 2, T4 = 6, T5 = 4, T6 = 0, T7 = 2. The percentage of non-overlapping score for her daily distress was a 43% which suggests the intervention was ineffective.

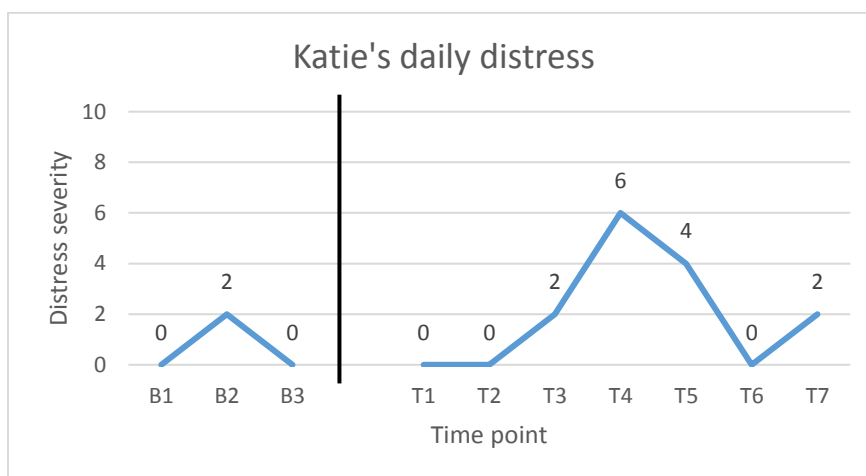


Figure 8. Katie's Baseline Report of Daily Distress

### Trauma-Related Symptomatology

At baseline, the TSCC-A validity scale for hyper-reporting and under-reporting were not elevated which suggest that Katie was not hyper-reporting or under-reporting her symptom severity. Compared to the same age and sex children, Katie endorsed Borderline symptoms for Depression subscale ( $T = 62$ ), Anger subscale ( $T = 64$ ), and Clinical symptoms for PTS subscale ( $T = 71$ ), and Overt-Dissociation subscale ( $T = 65$ ). Post-intervention, the TSCC-A validity scale for hyper-reporting was Borderline ( $T = 65$ ) which suggests that Katie may have been overreporting her symptoms. Therefore, these results should be interpreted with caution. Compared to the same age and sex children, Katie endorsed Clinical scores for Depression ( $T = 67$ ) and Anger ( $T = 68$ ). Katie's hyper-reporting scale post-intervention ( $T = 65$ , Borderline) increased compared to baseline ( $T = 47$ , Average). Additionally, Katie's Depression score post-intervention ( $T = 67$ , Clinical) increased compared to baseline ( $T = 62$ , Borderline). Her PTS score post-intervention ( $T = 47$ , Average) decreased compared to baseline ( $T = 71$ , Clinical). Additionally, her Dissociation-Fantasy score post-intervention ( $T = 59$ , Average) decreased

compared to baseline (T = 65, Clinical). Lastly, her Anger score post-intervention (T = 68, Clinical) increased compared to baseline (T = 48, Average).

### **Depression Symptoms**

At baseline, compared to same age and sex children, Katie reported Very Elevated symptoms for Functional Problems (T = 75) and Interpersonal Problems (T = 74). Katie reported Elevated Symptoms for Ineffectiveness (T = 67). Katie's overall Total CDI 2 score was Elevated (T = 69). Post-intervention, Katie's total CDI 2 score was Very Elevated (T = 87). Each of the subscales on the CDI 2 were Very Elevated: (a) Emotional Problems (T = 81), Negative Mood/Physical Symptoms (T = 74), Negative Self-Esteem (T = 83), Functional Problems (T = 85), Ineffectiveness (T = 81), and Interpersonal Problems (T = 79). Katie's Total CDI 2 score post-intervention (T = 87, Very Elevated) increased compared to baseline (T = 69, Elevated). Additionally, her Emotional Problems score post-intervention (T = 81, Very Elevated) increased compared to baseline (T = 60, High Average). Her Negative Mood/Physical Symptoms scale post-intervention (T = 74, Very Elevated) increased compared to baseline (T = 60, High Average). Her Negative Self-Esteem score post-intervention (T = 83, Very Elevated) increased compared to baseline (T = 57, Average). Lastly, her Ineffectiveness score post-intervention (T = 81, Very Elevated) increased compared to baseline (T = 67, Elevated).

### **Anxiety Symptoms**

At baseline, Katie's Total score on the SCARED was a 34 which may indicate the presence of an anxiety disorder. Her scores may also indicate the presence of a panic disorder or significant somatic symptoms (11), generalized anxiety disorder (10), and a social anxiety disorder (9). Post-intervention, Katie's Total score on the SCARED was a 43 which may indicate



the presence of an anxiety disorder. Her scores may also indicate the presence of a panic disorder or significant somatic symptoms (14), generalized anxiety disorder (10), and a social anxiety disorder (13). Katie's Total SCARED score post-intervention (43) increased compared to baseline (34) with a 9-point increase. Please refer to the below table for Katie's baseline and post-intervention PTSD, anxiety, depression, and trauma related symptomatology scores.

Table 4. Katie's Baseline and Post-Intervention PTSD, Anxiety, Depression, and Trauma Related Symptomatology Scores

UCLA PTSD-RI-5 pre/post Total score	TSCC-A anxiety pre/post subscale T-score	TSCC-A depression pre/post subscale T-score	TSCC-A anger pre/post subscale T-score	TSCC-A PTS pre/post subscale T-score	TSCC-A dissociation pre/post subscale T-score	CD1 2 Total T-score	SCARED Total score
51/36	52/59	62/67	48/68	71/47	57/51	69/87	34/43

### Parent Report of Social-Emotional Functioning

Katie's father did not return the CBCL to the researcher at baseline and post-intervention. Several attempts were made to obtain this information.

### Teacher Report of Social-Emotional Functioning

At baseline, Katie's Total Competence scale score ( $T = 35$ , < 7th percentile; comprised of Activities, Social, and School subscales) was in Clinical. At baseline, Katie's teacher indicated syndrome scale scores as Clinical for Social Problems ( $T = 74$ , > 97th percentile) and Aggressive Behavior ( $T = 71$ , > 97th percentile). She also indicated syndrome scale scores as Borderline for Anxious/Depressed ( $T = 68$ , 97th percentile), Thought Problems ( $T = 67$ , 96th percentile, and Rule Breaking Behavior ( $T = 66$ , 95th percentile). Her Total Problems scale score ( $T = 70$ , 98th percentile), Internalizing Problems scores ( $T = 68$ , 97th percentile), and Externalizing Problems

scores ( $T = 71$ , > 98th percentile) were Clinical. Post-intervention, Katie's teacher indicated her Total Competence scale score ( $T = 36$ , 8th percentile) was Clinical. Post-intervention, Katie's teacher indicated her Withdrawn/Depressed subscale score ( $T = 66$ , 95th percentile), Thought Problems score ( $T = 65$ , 93rd percentile), and her Aggressive Behavior score ( $T = 68$ , 97th percentile) were Borderline. Post-intervention, Katie's teacher indicated her Internalizing subscale score ( $T = 64$ , 92nd percentile), Externalizing Problems subscale score ( $T = 67$ , 96th percentile), and her Total Problems scale score ( $T = 65$ , 93rd percentile) were Clinical. Post-intervention ( $T = 62$ , Average) compared to baseline ( $T = 68$ , Borderline), Katie's teacher reported a decrease in her Anxious/Depressed subscale score. Post-intervention ( $T = 61$ , Average) compared to baseline ( $T = 74$ , Clinical), Katie's teacher reported a decrease in her Social Problems subscale score. Additionally, post-intervention ( $T = 64$ , Average;  $T = 68$ , Borderline) compared to baseline ( $T = 66$ , Borderline,  $T = 71$ , Clinical), Katie's teacher reported a decrease in her Rule-Breaking Behavior subscale score and her Aggressive Behavior subscale score. Additionally, post-intervention ( $T = 64$ , Average) compared to baseline ( $T = 66$ , Borderline), Katie's teacher reported a decrease in her Rule-Breaking Behavior subscale. Post-intervention ( $T = 68$ , Borderline) compared to baseline ( $T = 71$ , Clinical), Katie's teacher reported a decrease in her Aggressive Behavior subscale score.

At baseline, in open-ended questions, Katie's teacher reported several areas of concern including: (a) bullying, (b) sudden changes in behavior and attitude (i.e., suddenly dropping long-term friends, no longer helping classmates, and increased pessimistic outlook), (c) academic concerns in terms of missing assignments, and (d) obsessive interest (e.g., Hamilton and the movie *Heathers*). Lastly, Katie's teacher noted concerns with a recent history of making

homicidal threats and talking about death flippantly. The teacher also noted Katie creative and artistic abilities. Post-intervention, Katie's teacher continued to note concerns about her sudden change in behavior from happy, naïve/innocent, helpful, and kind to angry, anxious and engaging in bullying behavior. Her teacher continued to endorse Katie's creative abilities.

At baseline, on the SDQ-T, Katie's Total Difficulties scale score (15) was Slightly Raised. Katie's Peer Problem score (4) was Slight Raised, and her Emotional Problems score (5) and Conduct Problems score were High. Lastly, her Prosocial score (5) was Slightly Lowered. Post-intervention, Katie's teacher reported Slightly Raised Emotional Problems score (4) and Peer Problems score (4). Her teacher reported a Very High Conduct Problems score (6). Lastly, her Prosocial score was Very Low (1). Her Total Difficulties score was High (18). Katie's Total Problems scale score post-intervention (18, High) increased compared to baseline (15, Slightly Raised). Her Conduct score post-intervention (6, Very High) increased compared to baseline (4, High). Her Emotional Problems score post-intervention (4, Slightly Elevated) decreased compared to baseline (5, High). Lastly, her Prosocial score post-intervention (1, Very low) worsened compared to baseline (5, Slightly Lowered).

### **Grades, Attendance, and Behavioral Data**

For the 2017-2018 school year, Katie had two detentions in the 3rd quarter and no behavioral referrals in the 4th quarter. Katie's first detention was for bullying a student; she told the student she wished he would "die" several times. The second referral was for not following classroom direction. Both referrals happened a few weeks prior to the start of the intervention. For the 3rd quarter, Katie was absent 2.5 days and for the 4th quarter, Katie was absent 5.5 days. Katie's attendance rate for the 3rd quarter was 94% (42.5/45), and her attendance rate for the 4th

quarter was 88% (41.5/47). Katie's median baseline ELA grade was a 93%. Katie's ELA grades were variable throughout the duration of the intervention. Her percentage of non-overlapping data for her ELA grades was a 31%, which suggests the intervention was ineffective. Please refer to the below figure for Katie's baseline and intervention ELA grades.

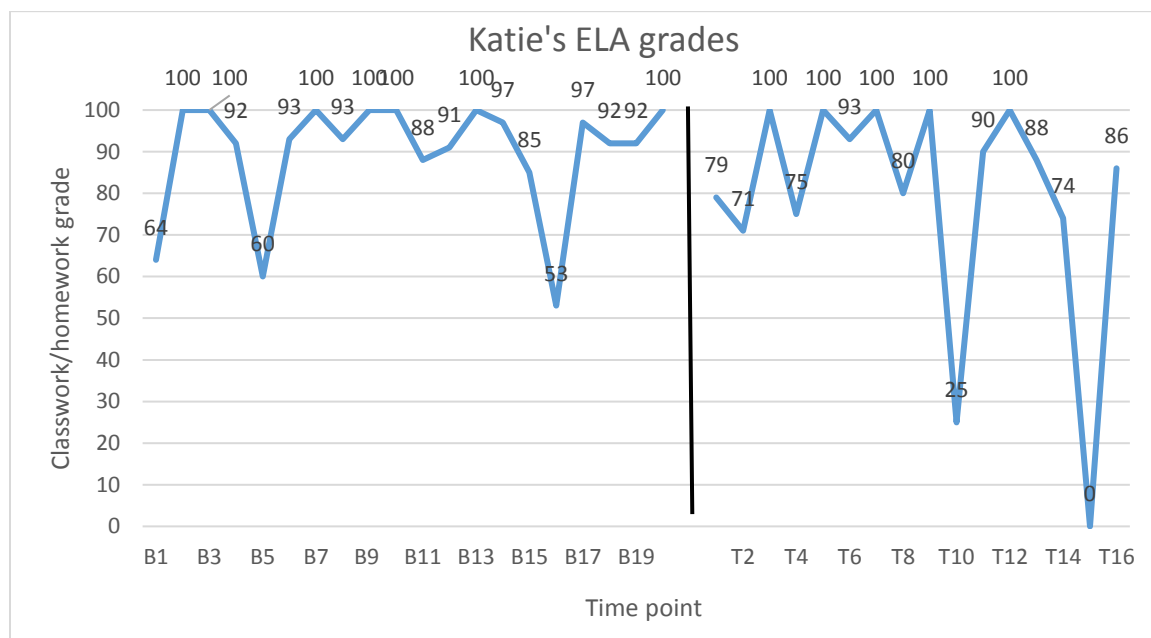


Figure 9. Katie's Baseline and Intervention ELA Grades

Katie's median baseline math grade was an 86%. Katie's percentage of non-overlapping data was 63%, which suggests the intervention was minimally effective. Please refer to the below figure for Katie's baseline and intervention math grades.

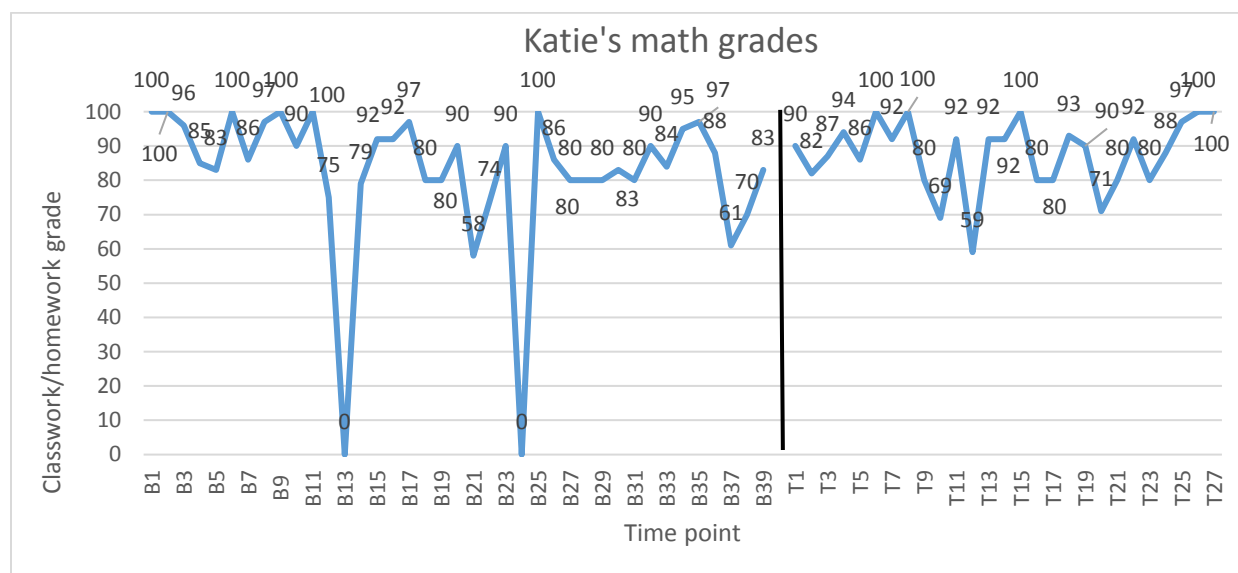


Figure 10. Katie's Baseline and Intervention Math Grades

### Social Validity

For the student survey Katie reported she strongly agreed with the statement that she would suggest the intervention to a friend if they needed the same kind of help. Katie reported she agreed with the statements that the intervention helped her to deal with the trauma she experienced, she learned helpful skills and techniques that she can use in the future, and she felt comfortable and safe during the intervention sessions. In open-ended questions, Katie reported she enjoyed drawing and working on the trauma narrative. She also stated she learned, "How to feel safe and how to stay happy." Lastly, she suggested more meetings could improve the intervention.

Katie's teacher reported she was satisfied with the interventions target of top priority behaviors and the provision of psychoeducation about trauma exposure for the teacher. She was somewhat satisfied with the teacher components: (a) provision of relaxation and coping strategies to be used by Katie in the classroom, (b) teacher inclusion in treatment planning, and

(c) teacher updates about Katie's treatment progress. The teacher reported that she liked that Katie was getting help. She also reported, "In the future, I would like more time to meet, so that maybe I could do more on my end to be effective."

### **School-Based Mandated Reporting and Crisis Prevention and Intervention Response**

At the end of the last session, Katie had indicated that her sister was sexually assaulted in the park several weeks before the disclosure. Lastly, a phone-call to discuss Katie's progress was conducted. The family was taking the appropriate legal step as confirmed by the local police department. The researcher provided referral supports regarding this incident. Katie indicated she did not want to share the narrative with either of her parents, and the researcher agreed this was a healthy decision. Therefore, Katie was coached to share the narrative with her counselor.

### **Case Study 4: Abbie, 7th Grade, 12-year-old Female**

#### **Fidelity**

Abbie received eight sessions of TF-CBT that followed a sequential and iterative process. Each session was 45-minutes in length, except Session 1 and 8 which were 30-minutes due to a shortened bell schedule. The intervention was implemented during the spring or 2nd semester of the school year (i.e., late 3rd quarter and through 4th quarter). Session 1 included: (a) administration of assessment measures (i.e., at the beginning of each session the Fear Thermometer was administered, and additional check-ins throughout the sessions involving the trauma narrative were conducted utilizing this tool), (b) provision of psychoeducation about trauma types, trauma reactions, trauma reminders, and treatment content, and (c) practice of individualized relaxation skills. For the initial psychoeducational component, Abbie was provided a list of common reactions to stress and trauma. She was asked to highlight the

common reactions she identified with, and she was encouraged to share this information with her supportive caretaker (i.e., biological father). For individualized relaxation skills, Abbie indicated she enjoyed deep breathing guided meditation practices that she was also using in her non-trauma focused counseling sessions. Therefore, this technique was reinforced throughout several of the TF-CBT sessions. Session 2 included continued provision of psychoeducation and provision of individualized relaxation skills. The rationale for TF-CBT and content was discussed. The metaphor of cleaning a wound when explaining the rationale for engaging in therapy for trauma exposure was used (Cohen et al., 2017). Session 3 included continued provision of individualized relaxation skills and provision of affect expression, affect identification, and affect modulation skills. The affect expression and modulation component included an activity in which Abbie drew a picture, identified colors to represent emotions, and colored where in the body she experiences feeling each emotion. Abbie's picture was extremely colorful (e.g., no white space), and she reported that she, "feels a lot of emotions." This sentiment was expressed throughout the TF-CBT sessions with Abbie expressing a strong desire to process her daily stressors/emotions and "crisis of the week." Abbie was also instructed to list several things she liked about herself. She was able to list several things (e.g., flexible, crisis smart, caring, and creative) with ease. Session 4 included continued provision of individualized relaxation skills and introduction to the cognitive triangle/optimistic thinking. The Triangle of Life application was utilized to reinforce basic CBT concepts (Mannarino & Cohen, 2015). Session 5 included an introduction to creating the trauma narrative. Abbie was eager to engage in this process. Please refer to the trauma narrative of this section to read about the construction and content of Abbie's trauma narrative. Session 6 and 7 included continued engagement in the

trauma narrative. Session 7 also included a session on increased awareness of problem-solving skills and social skills; peer conflict was a specific area of concern noted by Abbie's parents. Session 8 consisted of completion of the trauma narrative, review of the narrative, and processing of maladaptive thoughts. Specifically, boundaries regarding healthy adult and child interactions (i.e., it is not always appropriate for children to get involved directly in adult conflict) were discussed. Please refer to the below figure for the frequency of PRACTICE components.

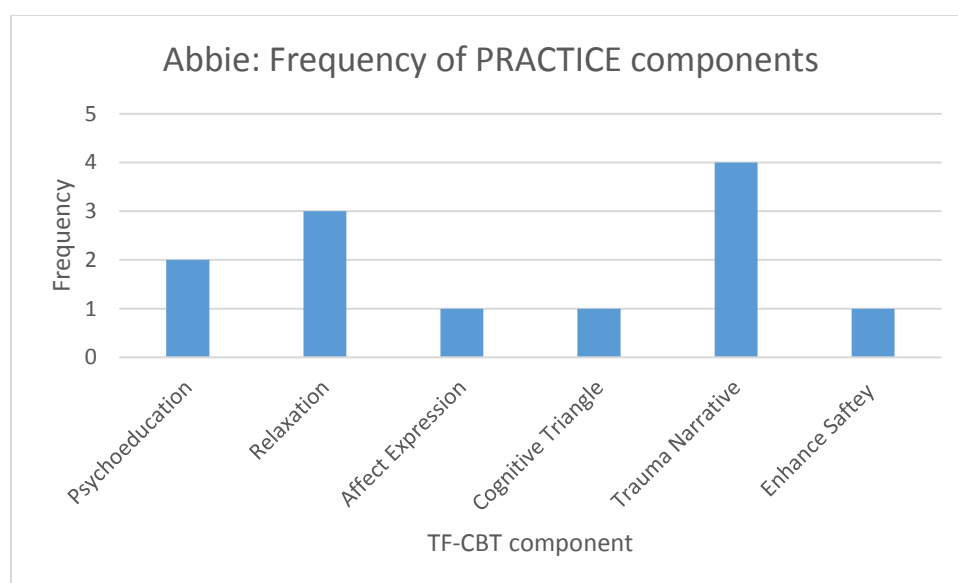


Figure 11. Frequency of PRACTICE Components (Abbie)

### **School-Based Stakeholder Participation: Teacher**

School-based treatment included consulting with Abbie's school-based social worker and working with her biological father, step-mom, and classroom teacher. One teacher meeting was conducted with Abbie's English teacher. Because Abbie is in middle school, she had several teachers. Her English teacher participated in the study based on her general willingness to participate. The teacher meeting involved psychoeducation on trauma exposure. The teacher was



aware of Abbie's primary traumatic event, and she asked the researcher, "Is this really considered a traumatic experience." The researcher used this opportunity to explain that a traumatic experience and subsequent reactions to that experience is determined by the subjective response of the person experiencing the event. The teacher expressed a new understanding of what trauma is and how it is defined.

### **School-Based Stakeholder Participation: School Psychologist/Mental Health Professional and Administrator**

The school social worker was instrumental in providing relevant information at the onset of the intervention. Throughout the intervention, the social worker had the researcher take the lead on the implementation of the study. She was updated when necessary. This was largely due to logistics because the social worker was only in the building on a limited number of days, and she was not in the building on the day the researcher met with the student. However, she was available by phone. The school principal was also actively involved in the initial stages of the intervention in providing initial information pertinent to the case and serving as a conduit between the school and the researcher. For example, the principal was key in providing a location and time for the researcher to meet with Abbie and providing the researcher agreed upon information such as the Abbie's grades and behavioral data.

### **School-Based Stakeholder Participation: Parent/Guardian**

The researcher conducted a parent meeting to review the content of the intervention, discuss initial progress Abbie was making, and provide psychoeducation on trauma exposure. For psychoeducation, the parents were shown common reactions to stress and trauma handout in which Abbie had endorsed specific trauma reactions. Abbie's parents also expressed concern

about her ability to interact with peers and problem solve social difficulties. This input was used to include a specific lesson on this topic in Session 7 of the intervention. Abbie expressed a desire to share her narrative with her father independently. The researcher coached Abbie on sharing the narrative and called Abbie's father to prepare him for receiving and responding to the narrative. A final phone call with Abbie's biological father included a discussion about Abbie's post-intervention symptoms. Abbie's father reported the sharing of the trauma narrative had gone well.

### **Trauma Exposure History and Trauma Narrative**

Abbie's trauma history was orally assessed via a clinical interview using the UCLA PTSD-RI-5's trauma/loss history screening questions. Abbie endorsed several potentially traumatic experiences including: (a) witnessing an accidental injury (i.e., brother had an accidental injury/fall), (b) illness/medical trauma (i.e., severe asthma), (c) domestic violence (i.e., biological mother and step-father), (d) impaired caregiver (i.e., biological mother), (e) bullying, and (f) witness/heard about an attempted suicide (i.e., heard about peer's attempted suicide). Her trauma exposure spanned the duration of her life and was as early as 1-4 years old and as recent as a few months before entering treatment. The UCLA PTSD-RI-5 asked Abbie to "provide a description of the trauma/loss type that is most bothersome." Abbie reported that she had thought in her mind about suicide in relation to difficulties with her mother (most significant incident took place a little over three months prior to the start of the intervention), and that her dad did not take her to the doctor/hospital one night when she was having an asthma attack.

Abbie was eager and willing to engage in the trauma narrative process. Abbie preferred to write and dictate her trauma narrative. She also followed the essential trauma narrative

components outline. Additionally, she preferred to take a literary approach and included a hook and anecdote at the beginning of her story. For the about me section she included feelings of jealousy and loss, “Some people think that their life is rough or they hate their life because they did not get what they wanted or their mom grounds them a lot. Well I think of it as oh well at least you have a mom.” She also reported the perception that she is not understood. In the section dedicated to memories before the trauma or good memories, Abbie chose to write about the birth of her youngest brother to her biological mother. Abbie expressed several affective themes including tears of joy/elation, sadness, sympathy sadness, and fear. She reported feelings of vindication when a fellow student did not get recognized for something. Lastly, she interwove extended family members (e.g., grandparents) throughout her story, highlighting the importance of immediate and extended family in her life’s story. Abbie’s description of her trauma narrative was about her biological mother leaving home for several days without notice. Abbie continued to weave extended family members throughout the event including her uncle and grandparents. Several affective themes arose, including feelings of panic which she described as a panic attack, sadness, and anger. Additionally, parental substance abuse was discussed. Abbie provided a wealth of information, some of which reflected a lack of boundaries among children and adults in her life, as well as adultification of the child. For example, Abbie reported her grandparents told her that her mother was “popping pills like candy.” Additionally, Abbie asked her mother why she had left. Abbie reported her mother told her, “I don’t want to be here anymore, I want to be with someone else. I do not want to be here.” Lastly, themes of rejection/abandonment and loss are expressed throughout. Abbie’s meaning-making section of her trauma narrative included resiliency talk related to grit and hope. She also discussed the use of coping strategies such as

using positive activities to distract, positive thinking, rational thinking, and non-avoidance.

Abbie wrote, “and if you have anxiety where you feel like you need to stay home, like me, you have to face your fears and do it.”

### **Pts Symptoms**

At baseline, Abbie’s UCLA PTSD-RI-5 Total score was a 36 (Cluster B symptoms, 12; Cluster C symptoms, 6; Cluster D symptoms, 8; Cluster E symptoms, 10; and Dissociative symptoms, 3). Per the *DSM-5*, Abbie met clinical criteria for a diagnosis of PTSD in all but one area: (a) one or more Category B symptoms present, (b) one or more Category C symptoms present, (c) two or more Category D symptoms present [only one symptom present in this category], and (d) two or more category E symptoms present. Additionally, her symptoms had lasted for greater than one month before the screening, and her symptoms were causing significant distress or impairment. Lastly, she did not meet criteria for a Dissociative Subtype. Post-intervention, Abbie’s UCLA PTSD-RI-5 Total score was a 23 (Cluster B symptoms, 12; Cluster C symptoms, 3; Cluster D symptoms, 12; Cluster E symptoms, 8; and Dissociative Symptoms 4). Post-intervention compared to baseline, Abbie experienced a 13-point reduction in her overall PTSD symptom severity score. Although, Abbie reported a reduction in her overall pts symptom severity, post-intervention she met criteria for a diagnosis of PTSD without Dissociative Subtype. When asked again to, “provide a description of the trauma/loss type that is most bothersome,” Abbie reported, “Well first I hate having anxiety attacks because those led to panic attacks. Then they just happen whenever they want to.” She elaborated verbally that the panic attacks happen before or after she sees her biological mother. Post-intervention (23) compared to baseline (36), Abbie’s PTSD symptoms severity score decreased 13-points.

### Progress Monitoring: Daily Distress

At baseline, Abbie's daily rating for fear/distress (0 = Not at all scared or upset, 3 = a little bit scared or upset, 6 = pretty scared or upset, and 9 = really scared or upset) were: B1 = 0, B2 = 3, and B3 = 4. Her median baseline score was a 3. Abbie's daily distress ratings were: T1 = 1, T2 = 2, T3 = 5, T4 = 1, T5 = 2, T6 = 2, T7 = 1, T8 = 1, T9 = 4, T10 = 6, T11 = 1, T12 = 1, T13 = 1. The percentage of non-overlapping data for her daily distress scores were 77%, which suggest the intervention was moderately effective.

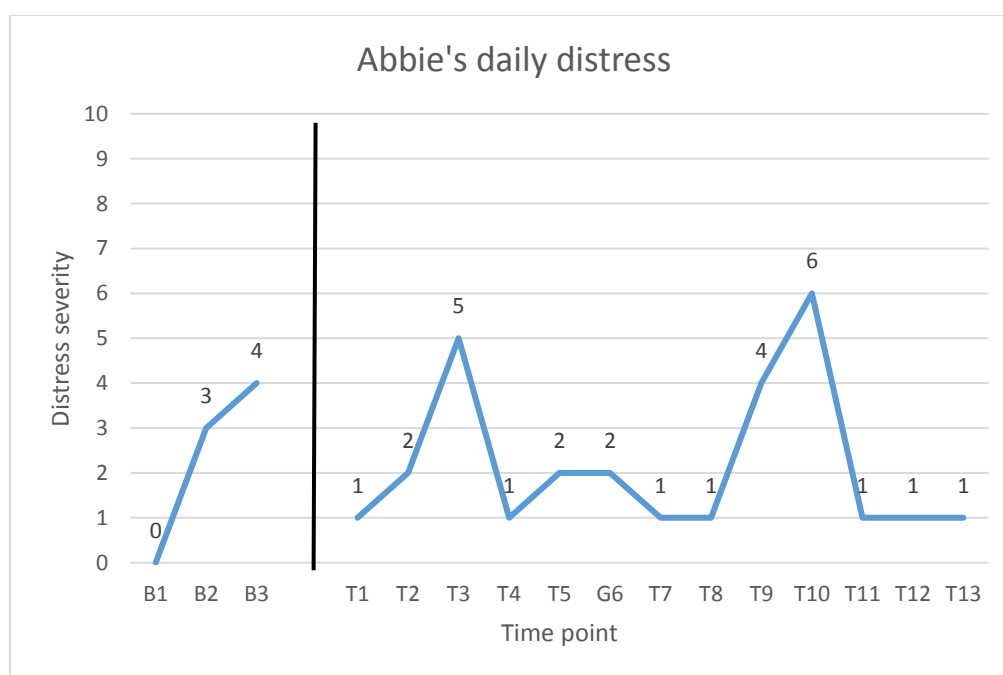


Figure 12. Abbie's Baseline Report of Daily Distress

### Trauma-Related Symptomatology

At baseline, the TSCC-A validity scale for hyper-reporting and under-reporting were not elevated which suggests that Abbie was not hyper-reporting or under-reporting her symptom severity. Compared to the same age and sex children Abbie endorsed Borderline symptom scores for Dissociation-Fantasy (T = 63), Anger (T = 64), and PTS symptoms (T = 63). Post-

intervention, the TSCC-A validity scale for hyper-reporting and under-reporting were not elevated which suggests that Abbie was not hyper-reporting or under-reporting her symptom severity. Compared to the same age and sex children Abbie endorsed Borderline symptoms scores for Anxiety (T = 61) and Anger (T = 61). Abbie reported a decrease in her PTS symptom score post-intervention (T = 55, Average) compared to baseline (T = 63, Borderline). She also reported a decrease in her Dissociation-Fantasy symptom score post-intervention (T = 42, Average) compared to baseline (T = 63, Borderline). Abbie reported an increase in her Anxiety symptom score post-intervention (T = 61, Borderline) compared to baseline (T = 56, Average).

### **Depression Symptoms**

At baseline, compared to same age and sex children, Abbie reported Very Elevated symptoms for Negative Self-Esteem (T = 70) and Interpersonal Problems (T = 70). Abbie reported Elevated Symptoms for Emotional Problems (T = 66) and Functional Problems (T = 68). Abbie's overall Total CDI 2 score was Elevated (T = 69). Post-intervention, Allison's total CDI 2 score was High Average (T = 64). Post-intervention, Abbie did not report Elevated or Very Elevated symptoms scores for any of the subscales. Post-intervention, Abbie's total CDI 2 score (T = 64, High Average) was reduced compared to baseline (T = 69; Elevated).

### **Anxiety Symptoms**

At baseline, Abbie's Total score on the SCARED was a 34 which may have indicated the presence of an anxiety disorder. Her scores may also have indicated the presence of a generalized anxiety disorder (15) and significant school avoidance (4). Post-intervention, Abbie's Total score on the SCARED was a 39 which may indicate the presence of an anxiety disorder. Her scores may also have indicated the presence of a panic disorder or significant somatic symptoms (12),

generalized anxiety disorder (13), separation anxiety, and (4) significant school avoidance.

Abbie's Total score on the SCARED increased post-intervention (39) compared to baseline (34) by 5 points. Additionally, her score on the separation anxiety subscale increased post-intervention (5) compared to baseline (4). This change in score resulted in an indication of a possible separation anxiety disorder. Please refer to the below table for Abbie's baseline and post-intervention PTSD, anxiety, depression, and trauma related symptomatology scores.

Table 5. Abbie's Baseline and Post-Intervention PTSD, Anxiety, Depression, and Trauma Related Symptomatology Scores

UCLA PTSD-RI-5 pre/post Total score	TSCC-A anxiety pre/post subscale T-score	TSCC-A depression pre/post subscale T-score	TSCC-A anger pre/post subscale T-score	TSCC-A PTS pre/post subscale T-score	TSCC-A dissociation pre/post subscale T-score	CD1 2 Total T-score	SCARED Total score
36/23	56/61	57/53	64/61	63/55	52/41	69/64	34/39

### Parent Report of Social-Emotional Functioning

At baseline, Abbie's Total Competence scale score ( $T = 42$ , < 21st percentile; comprised of Activities, Social, and School subscales) was in the normative range. At baseline, Abbie's biological father indicated a Borderline syndrome scale score for Social Problems ( $T = 68$ , 97th percentile). Additionally, her Total Problems scale score was Borderline ( $T = 62$ , 89th percentile). At baseline, in open-ended questions Allison's dad noted several areas of concern including: (a) academic difficulties, (b) anxiety problems, and (c) social problems. Regarding social problems, Allison's father noted, "She does not always react and interact with others appropriately. She tends to be bossy and controlling." He also noted that her overall demeanor is

caring and nurturing, especially towards animals. Abbie's biological father did not complete and return the CBCL post-intervention.

### **Teacher Report of Social-Emotional Functioning**

At baseline, Abbie's competence subscale score for Academic Performance (T = 36, 8th percentile) was Clinical. Additionally, her Total Competence scale score (T = 42, 21st percentile; comprised of Activities, Social, and School subscales) was in the normative range. At baseline, Abbie's classroom teacher did not indicate any clinically significant syndrome problems. Post-intervention, Abbie's teacher reported her competence subscale score for Academic Performance (T = 40, 16th percentile) was Borderline. Post-intervention, Abbie's Total Competence scale score (T = 42, 21st percentile) was Average. Post-intervention, her teacher did not indicate any clinically significant syndrome problem scores. Post-intervention (T = 40, Borderline) compared to baseline (T = 36, Clinical), Abbie's teacher reported a reduction in her Academic Problems score. At baseline, Abbie's teacher noted that her overall demeanor is kind and helpful to others, but that she can be argumentative in class when she is confused about a task or when she has incomplete work. Like baseline, Abbie's teacher noted that she struggles with academic tasks and has behavioral difficulties related to her academic problems. Post-intervention, her teacher noted one-on-one academic supports work best for Abbie. Abbie's teacher also noted that Abbie is motivated to work hard in class.

At baseline, on the SDQ-T, Abbie's Total Difficulties scale score (8) was Average, and her teacher did not indicate any significant concerns. Her Prosocial score (8) was also Average which indicates she engages in prosocial behaviors comparative to her peers. Post-intervention, Abbie's Total Difficulties scale score (10) was Average, and her teacher did not indicate any



significant concerns. Her prosocial score (6) was slightly low which suggests she may have engaged in less prosocial behaviors than her peers. There were no notable differences from post-intervention compared to baseline, on her SDQ-T beyond her decrease in her Prosocial scale score.

### Grades, Attendance, and Behavioral Data

For the second semester of the 2017-2018 school year Abbie had no tardies or absences and no behavioral referrals. Abbie's median baseline ELA grade was a 79%. Abbie's percentage of non-overlapping data for her ELA grades was a 63%. This suggests the intervention was minimally effective. Please refer to the below figure for Abbie's baseline and intervention ELA grades.

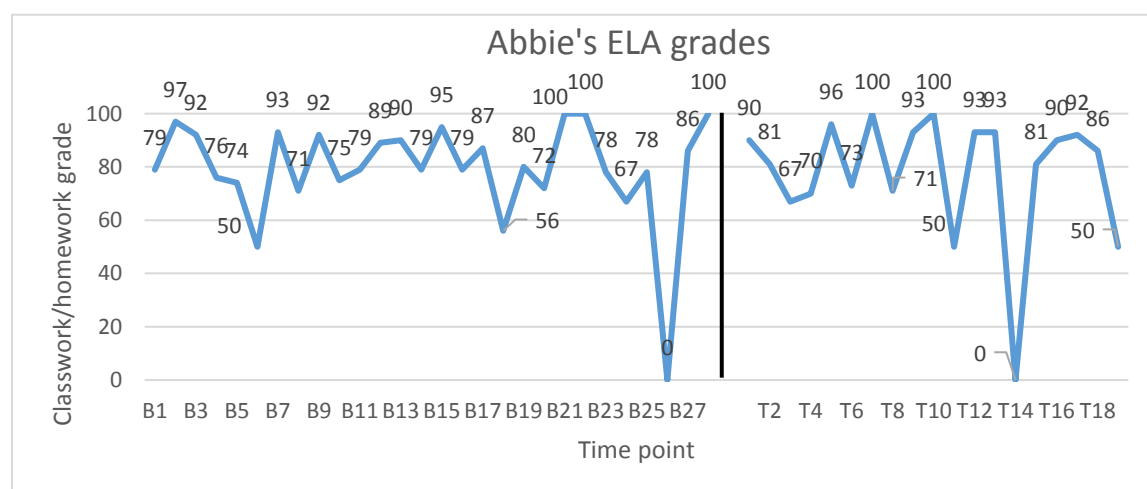


Figure 13. Abbie's Baseline and Intervention ELA Grades

Abbie's median baseline math grade was an 84.5%. Abbie's percentage of non-overlapping data for her math grade was 71%, which suggests the intervention was moderately effective. Please refer to the below figure for Abbie's baseline and intervention math grades.

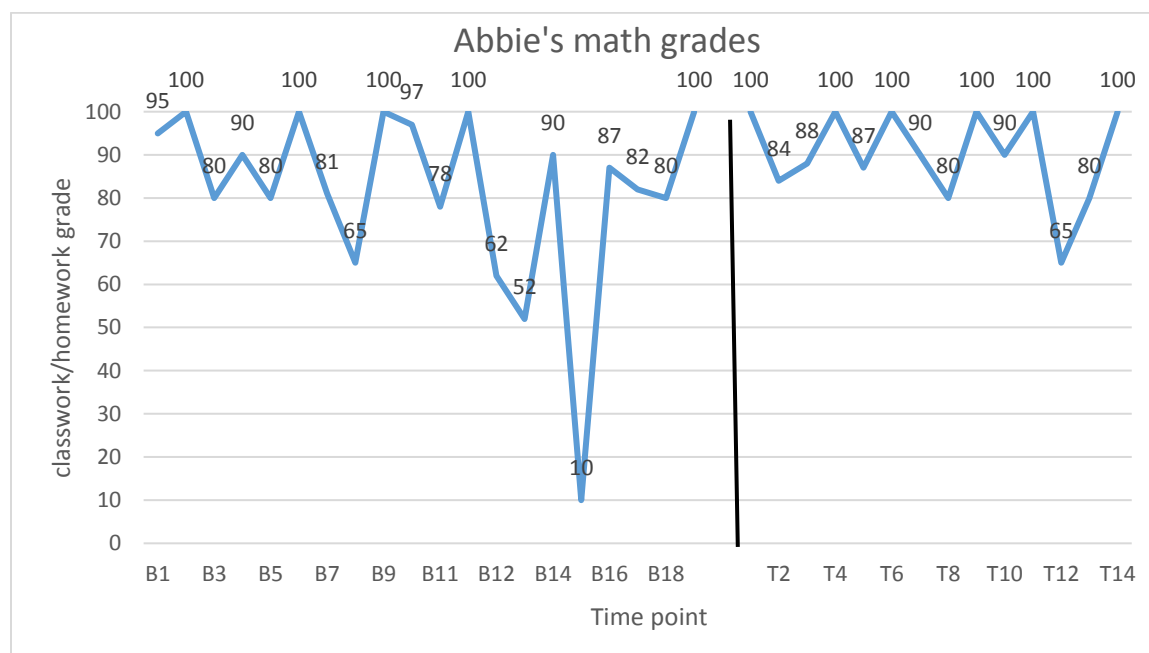


Figure 14. Abbie's Baseline and Intervention Math Grades

### Social Validity

For the student survey, Abbie reported she strongly agreed that she felt comfortable and safe during the intervention sessions. She also reported she agreed that she learned helpful skills and techniques that she can use in the future. Abbie reported she was undecided if she would recommend the intervention to a friend. She disagreed with the statement that the intervention helped her deal with her trauma/stress she experienced. In open-ended questions, Abbie reported she enjoyed the psychoeducation component of the intervention. Specifically, she enjoyed identifying where/how in the body she feels her feelings and creating the trauma narrative. She also reported, "I learned how to do my deep breathing skills." Regarding how the intervention could be improved Abbie stated she would have liked less structure and more time to engage in talking.

Post-intervention, Abbie's teacher reported that she was satisfied with: (a) the interventions target of top priority behaviors, (b) the trauma-specific psychoeducation provided, and (c) her inclusion in the treatment planning. She reported she was somewhat satisfied with the updates she received on Abbie's progress. Abbie's teacher reported she was liked that she knew that, "the student was receiving services she needed." She would have liked to have learned more strategies to employ in the classroom.

### **Cross-Analysis**

#### **Fidelity**

The four students received eight sessions ranging from 30-45 minutes (i.e., with one session being 25-minutes) of TF-CBT delivered in the school setting. The sessions followed the PRACTICE model and were sequential and iterative. All four of the students received: (a) psychoeducation; (b) individualized relaxation skills; (c) affect expression, identification and modulation skills; (d) cognitive triangle and optimistic thinking, (e) trauma narrative development; and (f) enhancing safety through assertive communication skills, problem solving skills, and safety planning. The in-vivo desensitization (i.e., in life desensitization) and the conjoint parent-child sessions were not conducted. The below graph shows how frequently each component was implemented during the eight sessions. The relaxation and trauma narrative were implemented most frequently, with the enhancing safety component implemented least.

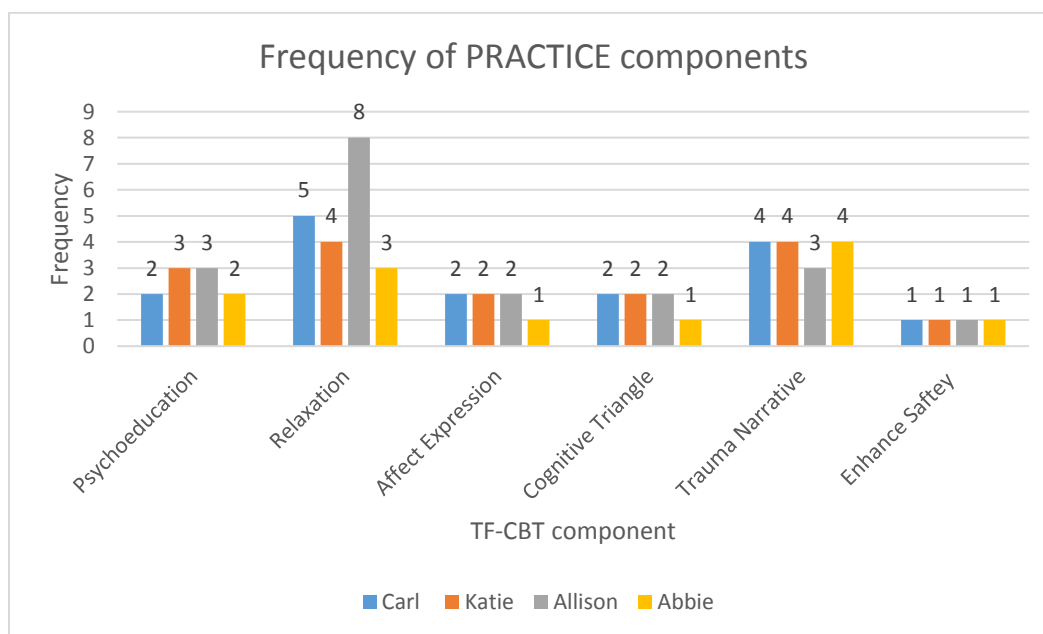


Figure 15. Frequency of PRACTICE Components

### School-Based Stakeholder Participation: Teacher

Two teachers participated in two formalized teacher meetings. Both meetings consisted of: (a) updating the teacher on the student's progress, (b) eliciting feedback from the teachers to inform treatment planning, (c) discussing safety and mandated reporting, (d) discussing appropriate boundaries with the student, (e) suggesting student specific relaxation strategies (i.e., journaling and mediation), and (f) providing psychoeducation about trauma. Lastly, the researcher reframed some of the student's behaviors in the classroom for one of the teachers. One of the teachers received weekly informal check-ins. These check-ins included: (a) providing psychoeducation on trauma, (b) eliciting feedback from the teacher to inform treatment planning, and (c) giving the teacher information on the student's progress (e.g., discussing with the teacher when the student had a particularly difficult session or if something was working well). The teacher of the middle-grade student was less involved and received one initial teacher meeting in

which she received general psychoeducation on trauma exposure among youth, and the researcher elicited feedback from the teacher on specific concerns the teacher had about the student. This information was used to inform treatment planning. Lastly, all four of the teachers received the Trauma Toolkit for Educators (NCTSN, 2017). Refer to the below table for a description of teacher participation.

Table 6. Description of Teacher Participation

Student	Teacher participant	Number of formalized (face-to-face) teacher meetings
Carl	Full-time classroom teacher	2
Allison	Full-time classroom teacher	2
Katie	Full-time classroom teacher	2
Abbie	English teacher	1

### **School-Based Stakeholder Participation: School Psychologist/Mental Health Professional and Administrator**

A school social worker supported three of the four case studies. A school psychologist/clinical psychologist supported one of the cases. The school psychologist (i.e., Carl's school psychologist) and the social workers (Katie and Allison's school social worker) were actively involved throughout the process to varying to degrees. Carl's school psychologist and Katie and Allison's school social worker served as liaisons between the researcher and the students' families and liaisons between the researcher and the schools. They also actively provided consultation to the researcher on a semi-regular basis and provided consultation on crisis situations that arose during treatment. One of the school social workers was less involved

throughout the process (i.e., Abbie’s school social worker), but she served as a liaison in the initial part of the process. Carl’s assistant principal was integrally involved in the process and served as a point person for crisis situations, logistics, and contact with the family. Abbie’s principal was involved in the initial process helping to foster a relationship between the family and the researcher. Katie and Allison’s school principals were uninvolved in the process and deferred to the school social worker. Refer to the below table for a description of school-based mental health professional participation.

Table 7. Description of School-Based Mental Health Professional Participation

Student	Mental health participant	Actively involved in consultation and logistical supports
Carl	School Psychologist/Licensed Clinical Psychologist	Yes
Allison	School social worker	Yes
Katie	School social worker	Yes
Abbie	School social worker	Yes

### **School-Based Stakeholder Participation: Parent/Guardian**

Three of the four parents participated in at least one in-person parent meeting (Carl, Katie, and Abbie’s parents). Carl’s step-mother received two parent meetings, one at the beginning of treatment and one post-treatment. Katie and Abbie’s parents received the one parent meeting early into the intervention (i.e., Session 3). The parent meetings consisted across all three cases in the provision of psychoeducation about trauma, including both common reactions to trauma exposure and case specific information about the student’s reactions. During the parent meetings, the researcher also provided in-depth information about the content and rationale for

the intervention, and the researcher elicited information from the parents about their specific concerns about their children. In one of the parent meetings (i.e., Carl), safety concerns were discussed, and in another parent meeting self-care for the parent was explicitly discussed (i.e., Katie). Allison's foster mother did not participate in the parent meetings, but she received weekly calls from the researcher. To establish rapport, the researcher routinely checked-in with the parent, and the researcher updated her on the content of the week's session as well as the student's progress. Additionally, phone calls were made to Allison's foster mother to discuss safety concerns and Allison's suicide ideation. Although the researcher elicited information from Allison's foster mother regarding her concerns she did not provide any substantial information to the researcher. A conjoint parent-child meeting was not conducted with any of the parents; however, Abbie shared the trauma narrative with her biological father. Both Abbie and her father coached by the researcher through the process before the sharing of the narrative. Please refer to the below table for a description of parent participation.

Table 8. Description of Parent Participation

Student	Parent participant	Number of in-person parent meetings	Trauma narrative shared with parent
Carl	Biological Father	1	No
Allison	Foster Mother	0	No
Katie	Biological Father	1	No
Abbie	Biological Father	1	Yes

### **Trauma Exposure History and Trauma Narrative**

All four of the student participants had experienced trauma exposure from an early age throughout the lifetime. Carl had experienced five different types of trauma exposure, Katie had experienced six different types of trauma exposures, Allison had experienced six different types of trauma exposures, and Abbie had experienced six different types of trauma exposures. The average number of different types of trauma exposures for the students was 5.75. Carl's primary traumatic event took place when he was 5-years old. Katie's primary traumatic event took place when she was 11-years old. Allison's primary traumatic event took place when she was 4-years old. Lastly, Abbie's primary traumatic event took place when she was 12 years-old. The average age of the students at the time of their primary traumatic event was 8-years old. Lastly, all four of the students reported that traumatic separation was their primary traumatic event type. Allison's primary traumatic event type was traumatic separation in the form of traumatic grief.

Carl, Katie, and Abbie worked on the trauma narrative throughout four sessions, and Allison worked on the trauma narrative for three sessions. Katie and Abbie followed a structured written format of the trauma narrative that included: (a) a description about themselves, (b) what it was like before, what happened, and (c) what they learned from the experience or what would recommend to students in the same situation. Carl's trauma narrative was completed in an unstructured form that included draws and the creation of timeline of his major life events. This format was appropriate for his age. Lastly, Allison completed a structured form of the trauma narrative and a less structured narrative in the form of a letter. Several themes emerged from the trauma narratives. Numerous emotions were expressed throughout the trauma narratives including positive emotions such as: (a) happy, (b) hope, and (c) joy. More difficult emotions



were also expressed such as: (a) anger, (b) fear, (c) jealousy, (d) suspicion, and (e) sadness/depression. A more neutral feeling of ambivalence was also expressed. Trauma-specific symptoms were also discussed such as panic attacks, avoidance, and nightmares. Carl, Allison, and Abbie's narratives included the presence of extended family members throughout the narrative. Carl, Katie, and Abbie's narratives also included happy memories before the event. All four of the narratives included some form of meaning-making. The meaning-making in two of the narratives (e.g., Katie and Abbie) were overt. For example, Abbie wrote as advice to someone in the same situation, "And if you have anxiety where you feel like you need to home, like me, you have to face your fears and do it. And face your fears. Just because this happens to you know that people love you and it is never your fault. Never give up hope." While meaning-making in two of the narratives (e.g., Carl and Allison) were subtle. For example, Carl wrote he had fun at Easter (e.g., he spent an enjoyable time separately at both his mothers and father, and his primary traumatic event was early separation from his mother). Four of the narratives included loss. Caitlyn and Allison's narratives involved death or a suicide attempt (e.g., parental death, suicide attempt, and death of pets).

### **Pts Symptoms**

Three of the four students or 75% of the student who participated in the study experienced a reduction in their UCLA PTSD-RI-5 Total symptom severity score. Carl's score post-intervention (13) compared to baseline (50), reduced by 37-points. Score post-intervention (23) compared to baseline (36), reduced by 13-points. Katie's score post-intervention (36) compared to baseline (51), reduced by 15-points. Allison's score post-intervention (65)

compared to baseline (63), increased by 2-points. Please refer to the below figure for baseline and post-UCLA PTSD-RI-5 symptom severity scores.

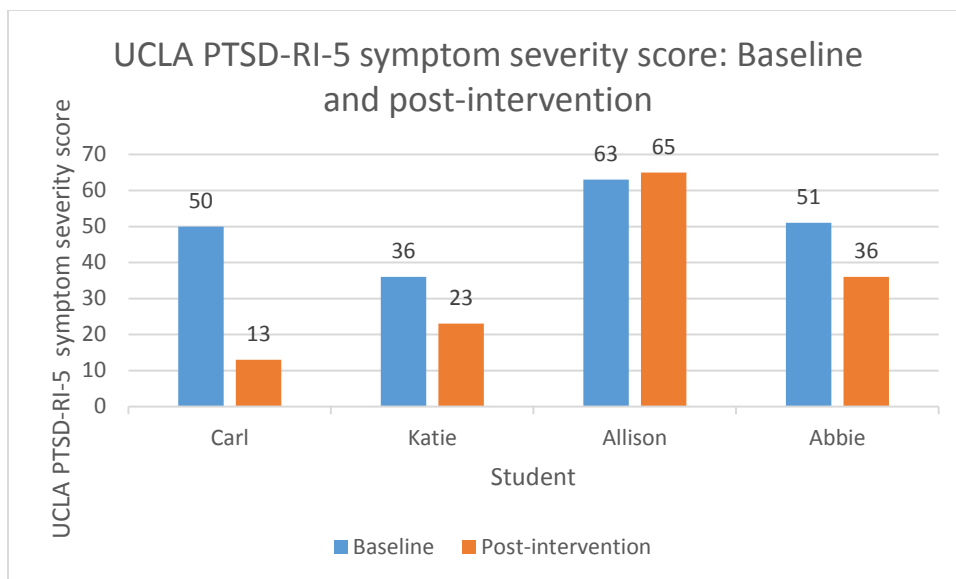


Figure 16. Baseline and Post-UCLA PTSD-RI-5 Symptom Severity Scores

### Progress Monitoring: Daily Distress

Katie's percentage of non-overlapping data for daily distress and Allison's percentage of non-overlapping data for daily distress was 31%. This data suggests that the intervention was minimally effective in reducing their daily report of distress. Abbie's percentage of non-overlapping data for daily distress was 77%, suggests that the intervention was moderately effective in reducing her daily distress. For Carl, the percentage of non-overlapping data could not be calculated because his baseline level of self-reported distress on this measure was so low.

### Depression Symptoms

There were two measures that accessed depression one was the CDI 2 and there was a subscale for depression on the TSCC-A which assesses trauma-related depression symptoms. The overall CDI 2 scale may be more reliable because it is comprised of more items. Carl and

Abbie experienced a reduced in their overall depression symptoms on the CDI 2. Carl's CDI 2 Total score reduced post-intervention (T = 57, High Average) compared to baseline (T = 66, Elevated). Carl's Depression score on the TSCC-A reduced post-intervention (T = 48, Average) compared to baseline (T = 78, Clinical). Abbie's CDI 2 Total scale score decreased post-intervention (T = 64, High Average) compared to baseline (T = 69, Elevated). Although, her TSCC-A Depression score was not elevated at baseline (T = 53, Average) or post-intervention (T = 57, Average). Allison's depression symptom scores remained consistent post-intervention compared to baseline. Allison's CDI 2 total score was Very Elevated at both baseline and post-intervention (T > 90). Her TSCC-A depression subscale scores were both Clinical at baseline (T = 84) and post-intervention (T = 86). Katie's depression symptom scored increased post-intervention compared to baseline. Katie reported an increase in her CDI 2 Total scale score post-intervention (T = 87, Very Elevated) compared to baseline (T = 69, Elevated). Similarly, Katie reported an increase in her TSCC-A Depression subscale post-intervention (T = 67, Clinical) compared to baseline (T = 62, Borderline). Please refer to the below figure for CDI 2 Total Scores at baseline and post-intervention.

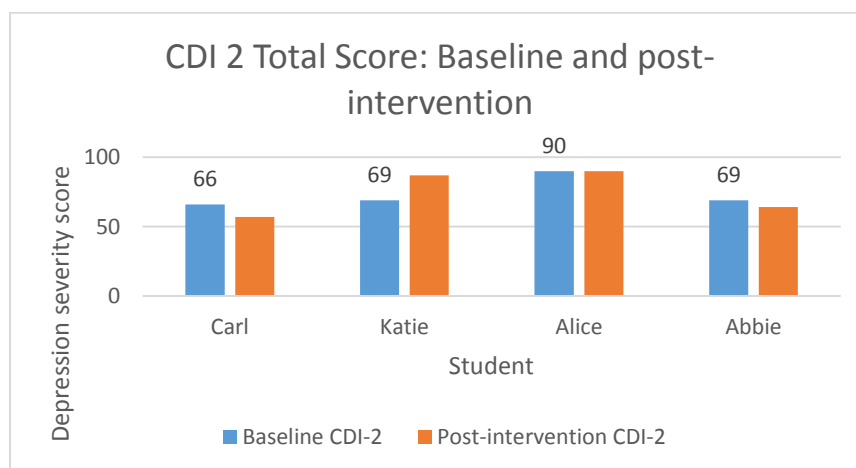


Figure 17. CDI-2 Total Scores at Baseline and Post-Intervention

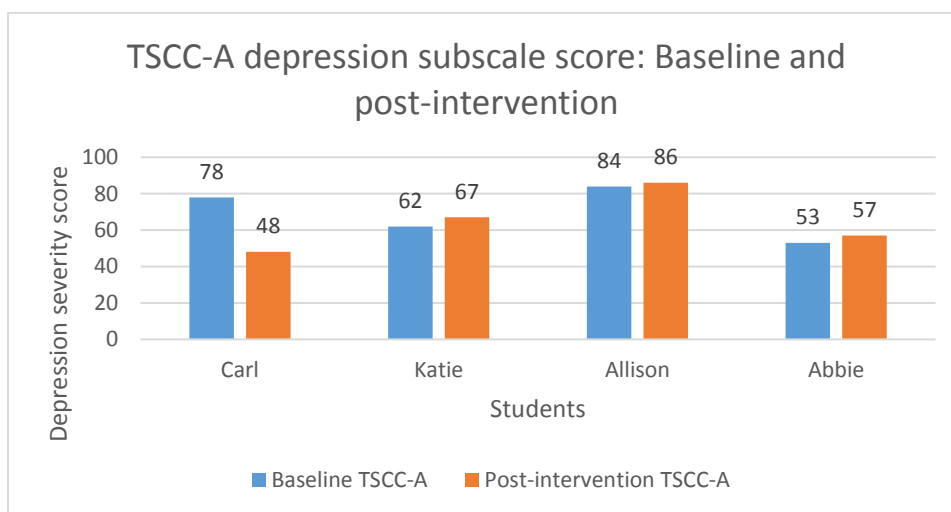


Figure 18. TSCC-A Depression Subscale Score: Baseline and Post-Intervention

### Anxiety Symptoms

There were two measures that assessed depression, the SCARED and the TSCC-A Anxiety subscale. The SCARED Total score may be more reliable because it is comprised of more items. Carl reported a reduction in anxiety symptoms post-intervention compared to baseline. On the SCARED Carl reported a reduction in anxiety symptoms post-intervention (16) compared to baseline (50), with a 34-point reduction in anxiety symptoms. Similarly, on the TSCC-A anxiety subscale, Carl reported a reduction in anxiety symptoms post-intervention ( $T = 56$ , Average) compared to baseline ( $T = 74$ , Clinical). Allison's anxiety symptoms remained stable post-intervention compared to baseline. Allison's self-report of Total anxiety symptoms score on the SCARED increased post-intervention (66) compared to baseline (59) or a 7-point increase. This was comparable to scores on the TSCC-A Anxiety subscale which remained stable post-intervention ( $T = 89$ , Clinical) compared to baseline ( $T = 87$ , Clinical). Abbie's anxiety symptoms increased post-intervention compared to baseline. Abbie's Total score on the SCARED increased post-intervention (39) compared to baseline (34), with a 5-point increase. On

the TSCC-A Anxiety subscale, Abbie's score increased post-intervention (T = 56, Average) compared to baseline (T = 61, Borderline). Katie's anxiety symptoms were inconsistent between the two measures. Katie's Total anxiety symptoms score on the SCARED increased post-intervention (43) compared to baseline (34), with a 10-point increase. However, on the TSCC-A at baseline (T = 52) and post-intervention (T = 59) her anxiety symptoms were in the Average range. Please refer to the below figure for baseline and post-intervention SCARED Total scores.

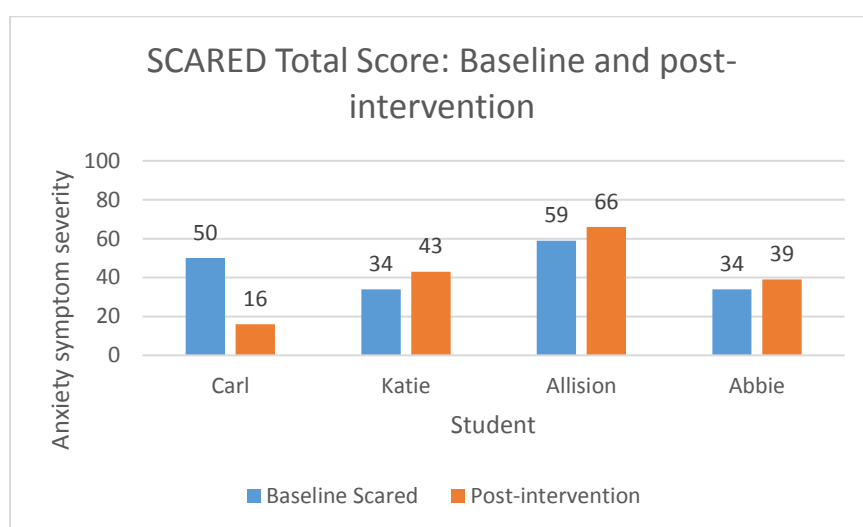


Figure 19. SCARED Total Score: Baseline and Post-Intervention

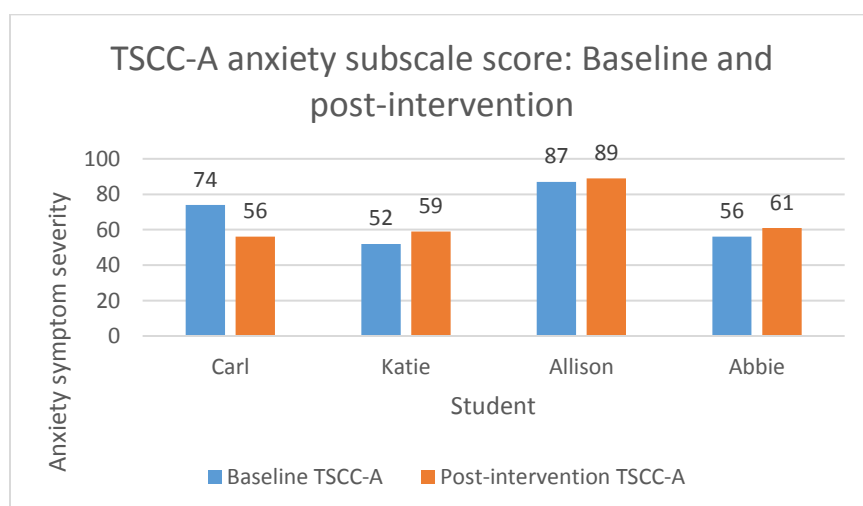


Figure 20. TSCC-A Anxiety Subscale Score: Baseline and Post-Intervention

**Externalizing Symptoms**

Carl's biological father did not report a reduction in his CBCL Externalizing Problems scale post-intervention (T = 85, > 98th percentile, Clinical) compared to baseline (T = 83, > 98th percentile, Clinical). Similarly, Carl's classroom teacher reported the same scores for his CBCL Externalizing Problems scale post-intervention (T = 69, 97th percentile, Clinical) compared to baseline (T = 69, 97th percentile, Clinical). However, Carl's teacher reported a reduction in his Attention syndrome subscale scores post-intervention (T = 62, 89th percentile, Average) compared to baseline (T = 68, 97th percentile, Borderline). Katie's classroom teacher reported similar scores for her CBCL Externalizing Problems scale post-intervention (T = 67, 67th percentile) compared to baseline (T = 71, 71st percentile). Katie's teacher reported a decrease in her Rule-Breaking Behavior subscale score post-intervention (T = 64, 92nd percentile, Average) compared to baseline (T = 66, 95th percentile, Borderline). Additionally, Katie's teacher reported a decrease in her Aggressive Behavior subscale score post-intervention (T = 68, 97th percentile, Borderline) compared to baseline (T = 71, > 97th percentile, Clinical). Refer to the below tables for parent report and teacher report of externalizing symptoms by student.

Table 9. Externalizing Symptoms: CBCL Parent Report

Student	Externalizing problems Pre*/Post	Attention problems Pre/Post	Rule-Breaking behavior Pre/Post	Aggressive behavior Pre/Post
Carl	83 (> 93)/ 85 (> 98)	79 (> 97)/ 79 (> 97)	79 (> 97)/ 80 (> 97)	94 (> 97)/ 98 (> 97)
Allison	44 (28)/ --	52 (58)/ --	50 ( $\leq$ 50)/ --	50 ( $\leq$ 50)/ --
Katie	--	--	--	--
Abbie	54 (65)/ --	63 (90)/ --	54 (65)/ --	54 (65)/ --

\*T-score (percentile); -- = missing data.

Table 10. Externalizing Symptoms: TRF Teacher Report

Student	Externalizing problems Pre*/Post	Attention problems Pre/Post	Rule-Breaking behavior Pre/Post	Aggressive behavior Pre/Post
Carl	69 (97)/ 69 (97)	68 (97)/ 62 (89)	64 (92)/ 64 (92)/	69 (97)/ 69 (97)
Allison	58 (79)/ 43 (24)	50 ( $\leq$ 50)/ 50 ( $\leq$ 50)/	50 ( $\leq$ 50)/ 50 ( $\leq$ 50)/	60 (84)/ 50 ( $\leq$ 50)/
Katie	71 (> 98)/ 67 (96)	63 (90)/ 58 (79)	66 (95)/ 64 (92)	71 (> 97)/ 68 (97)
Abbie	61 (87)/ 60 (84)	57 (76)/ 58 (79)	50 ( $\leq$ 50)/ 50 ( $\leq$ 50)/	63 (90)/ 62 (89)

\*T-score (percentile).

**Attendance, Behavioral Data, and Grades**

For the 2017-2018 school year, the students had good school attendance at both baseline and post-intervention. Both Allison and Abbie had zero absences for the recorded timeframe. Carl had 1 absence and 1 tardy for the recorded timeline. Katie had the most absences with a slight increase in absences as the intervention progressed with 2.5 days of absence in the 3rd quarter and 5.5 days of absences in the 3rd quarter. Both Allison and Abbie did not have any behavioral referral or suspensions for the school year. Carl had one suspension mid-way through the intervention. Katie had two behavioral referrals directly before the start of the intervention, but no referral throughout the intervention.

Carl and Abbie's reading/writing grades/competency increased post-intervention compared to baseline. Post-intervention compared to baseline, Carl's writing skills moved from developing to mastery. His other ELA skills remained constant. Abbie's percentage of non-overlapping data for her ELA grades was a 63%, suggesting the intervention was minimally effective. Katie's percentage of non-overlapping data for her ELA grades was a 31%, which suggests the intervention was ineffective. Allison's ELA grades slightly decreased throughout the duration of the intervention from mostly 100% to mostly in the 80-90%. Carl, Allison, and Abbie experienced improvements in their math grades/competencies post-intervention compared to baseline. Post-intervention compared to baseline, Carl experienced growth in several math areas from developing to mastery. Allison's percentage of non-overlapping data for her math grades was a 75%, suggesting the intervention was moderately effective. Abbie's percentage of non-overlapping data for her math grade was 71%, which suggests the intervention was moderately effective. Katie's percentage of non-overlapping data was 63%, which suggests the



intervention was minimally effective. Refer to the below table for attendance data, behavioral data, and percentage of non-overlapping math and ELA grade data by student.

Table 11. Student Grades, Attendance, and Behavioral Data

Student	Absences	Behavioral Data Suspension/referral	ELA grades: Percentage of non-overlapping data	Math grades: Percentage of non- overlapping data
Carl	1	2/1	--	--
Allison	0	0/0	**	75
Katie	8	0/2	31	71
Abbie	0	0/0	63	63

-- = missing data, \*\* unable to calculate due ceiling effect

### Social Validity

Carl reported he strongly agreed that the intervention helped him to deal with his stress and trauma. Katie and Allison reported they agreed that the intervention helped them to deal with their stress and trauma, and Abbie reported that she disagreed that the intervention helped her deal with her trauma. Carl and Allison reported that they strongly agreed, and Katie and Abbie reported that they agreed with the statement that they learned helpful skills and techniques that they can use in the future. Carl, Katie, and Allison reported that they strongly agreed with the statement that they would suggest the intervention to a friend if they needed the same kind of help. Abbie reported she was undecided if they would recommend the intervention to a friend. Lastly, Carl and Abbie reported that they strongly agreed that they felt comfortable and safe during the intervention sessions. Katie and Allison reported that they agreed that they felt

comfortable and safe during the intervention sessions. Katie and Abbe reported the trauma narrative was what they enjoyed most about the intervention. Allison reported that she liked having someone to talk with during the intervention. Abbie reported she learned how to do her deep breathing skills, and Carl reported that he learned how his body feels. Katie reported that she learned how to be safe. Katie said she would have liked to have had more meetings. Abbie stated she would have liked to have done fewer activities and have had more time to talk. Please refer to the below figure for the student satisfaction survey results.

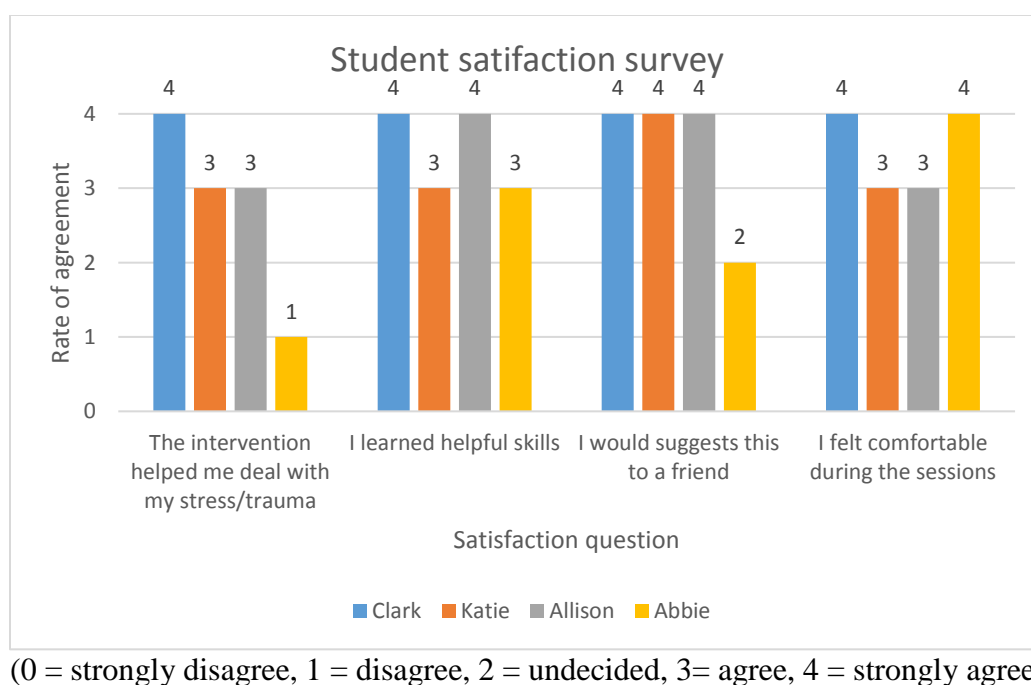


Figure 21. Student Satisfaction Survey Results

Three of the teachers reported that they were satisfied with the targeted intervention to limit top priority behaviors. Three of the teachers reported they were satisfied with the psychoeducation they received about general trauma exposure in the classroom. Two teachers reported they were satisfied and one teacher reported they were somewhat satisfied with the relaxation and coping strategies that they were provided to use in their classroom. Two teachers

reported they were satisfied, and one teacher reported they were somewhat satisfied with their inclusion in the treatment planning process. Two teachers reported that they were satisfied or very satisfied with the updates they received on their student's progress. One teacher reported they were somewhat satisfied with the updates they received about the treatment progress of their student. Two of the teachers reported they would have liked to be more involved in the process, but that they did not have specific ideas about how to enhance teacher involvement. Two teachers also reported that they liked knowing that their student was getting “help.” Please refer to the below figure for the teacher satisfaction survey results.

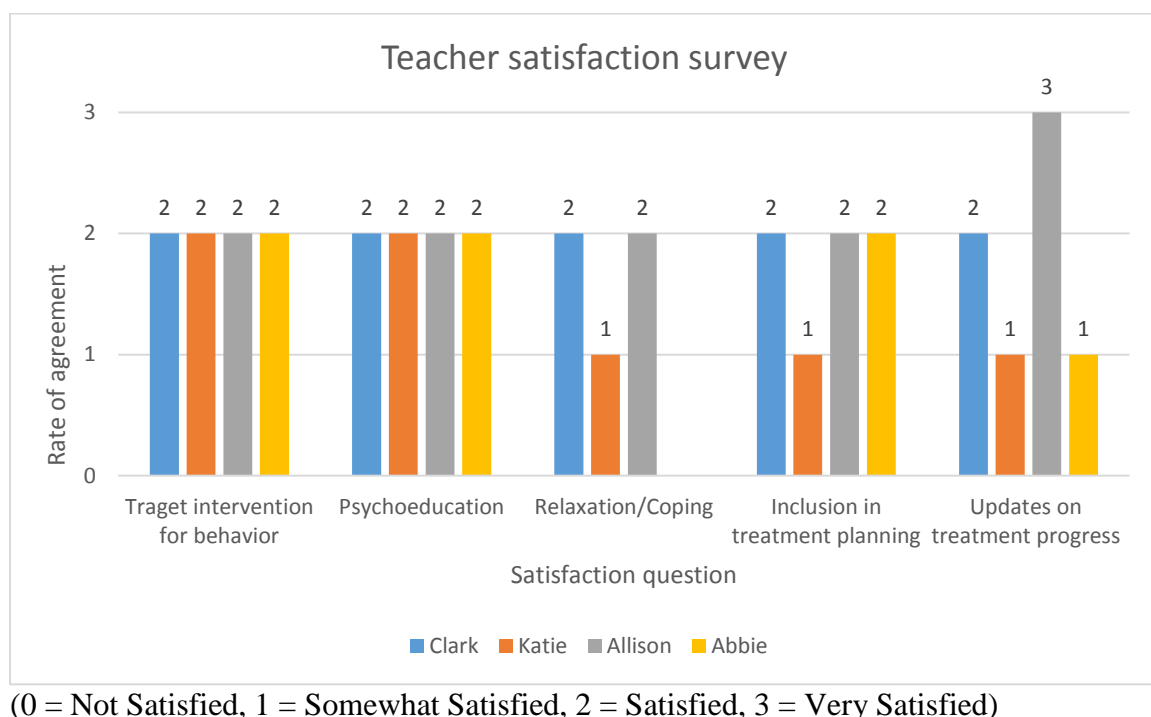


Figure 21. Teacher Satisfaction Survey Results

### Summary of Findings

Adherence to the fidelity of an eight-week TF-CBT intervention, with a teacher component, was feasible in the school setting. Additionally, both students and teachers were

satisfied with the intervention with some teachers noting they would have liked to have been more involved in the intervention process. Most of the students (three of four) experienced a reduction in PTSD symptoms. However, a similar finding was not found for anxiety and depression symptoms. Teachers reported a reduction of specific externalizing symptoms post-intervention compared to baseline. Additionally, three of the four students showed improvement in their grades post-intervention compared to baseline.

## CHAPTER FIVE

### DISCUSSION

#### **School-Based Implementation of TF-CBT**

This research study combines clinical best practice with real-world case examples to examine and describe how TF-CBT was implemented in three rural schools (one elementary, one upper elementary, and one junior high school). The study explores the nuances of using a TF-CBT protocol designed to meet the unique needs of the school setting, maintaining adherence to the protocol with fidelity while being flexible to meet the contextual needs of each case (Cohen, Mannarino, & Deblinger, 2006; 2016; Fitzgerald & Cohen, 2012). The purpose of the study was to understand the dynamic nature of the school setting in which the client is embedded in a unique ecological system, the school (Bronfenbrenner, 1994). This system interacts with other systems and includes key stockholders such as the student's teachers and the student's family (Cappella, Frazier, Atkins, Schoenwald, & Glisson, 2008).

This study expands upon the literature which currently includes a plethora of research studies examining TF-CBT in clinical settings, but only one case study examining TF-CBT in the school setting (Stevens & Michael, 2014) and one telehealth study that was implemented in a clinic and a school setting (Stewart et al., 2017). Although the Stevens and Michael (2014) study was descriptive, it did not include a rationale for the design of the intervention protocol to suit the school setting. Additionally, to my knowledge, no published study to date has examined teacher participation in TF-CBT. This subsequent chapter aims to analyze the results from the study in the context of existing literature. The study's three research questions are used to

provide a framework for the discussion: (a) How is TF-CBT with a teacher component implemented in the school setting?, (b) What are the outcomes associated with TF-CBT with a teacher component in a school setting?, and (c) What is the social validity of TF-CBT with a teacher component among key stakeholders in the school setting? Implications are discussed for each of the three central research questions. Lastly, limitations of the study and future directions are discussed.

The following section explores the fidelity of each TF-CBT case, school-based key stakeholder participation (i.e., parents, teachers, administrators, and school psychologists/school-based mental health professionals) in TF-CBT, and the trauma narrative. This section highlights the contextual nuances and implications of implementing TF-CBT with a teacher component in the school setting.

### **Fidelity**

The students received most of the authors' recommended essential TF-CBT components within a minimum researched-based (e.g., positive outcomes associated with as few as eight TF-CBT sessions) duration of sessions (Cohen et al., 2017; Deblinger et al., 2011). Regarding fidelity of the intervention, the study found TF-CBT can be successfully implemented in the school setting with eight sessions in 30-45 minutes in duration, while adhering to most of the major components of the PRACTICE acronym. Due to timing and the logistic of working in a school setting, the in-vivo desensitization component was only indirectly addressed. However, Cohen and colleagues (2016) report the intervention can be successfully implemented without the in-vivo desensitization component.

Timing and duration of the intervention consisted of the researcher balancing clinical considerations while directly working with key stakeholders in the school to meet their individualized needs. For example, the maximum time that the school administrators and teachers would allot per-week to the intervention was 30-45 minutes, which was largely dependent on the bell schedule and the duration of one class period. Additionally, one school administrator requested the session be at the end of the day so that the student would not have to process difficult information and then return immediately to a demanding academic task. Further, in balancing the needs of the school, Carl's teacher, and the needs of Carl the researcher agreed to meet him a shorter period so that he could still attend physical education (PE), a much-needed outlet.

The timing of the school year was also an important consideration. Most of the sessions had to be completed in one school semester to factor in the winter break and ensure a very long break did not coincide with the trauma narrative component and disrupt continuity and momentum of the intervention. Additionally, it took a significant amount of time to build relationships, identify potential participants, screen participants, and to establish procedural logistics (e.g., session time). Due to these constraints, three of the four cases started 1-2 months into the spring semester. Significantly, attendance was not an issue for any of the participants. Whereas retention is a significant issue in clinic settings, this is a strength of school-based implementation of trauma services (Cohen et al., 2009).

These findings highlight the importance of formally including key school-based stakeholders such as teachers and administrators in implementation of TF-CBT and supports the literature that suggests that they may determine whether a student can attend an intervention

session (Doll & Cummings, 2008; Forman, 2015). Lastly, a key implication in the context of providing trauma-focused interventions in schools is the concept of flexibility with fidelity. The implementer is not only treating the student, but the implementer is also working within the system; therefore, the implementer must balance the need to maintain fidelity with the need to maintain flexibility to meet the unique needs of each key stakeholder (Harn, Parisi, & Stoolmiller, 2013).

The students received session content that included: (a) administration of assessment measures and engagement techniques utilized; (b) provision of trauma-specific psychoeducation, (c) provision of individualized relaxation skills; (c) provision of affect expression, affect identification, and affect modulation skills; (d) introduction to the cognitive triangle; (e) development of the trauma narrative; and (f) discussion of personal safety and problem-solving skills when appropriate. One component that was not included in the intervention, but the intervention's authors recognize as a core component, was in-vivo desensitization for general avoidance. However, the authors advocate that this component be done as needed and may not be an essential component of the intervention (Cohen et al., 2017). Timing and logistics made this component particularly difficult to complete in the school setting. Specifically, the school setting allowed for a limited timeframe to implement TF-CBT; therefore, essential components of the intervention were focused on. Additionally, the school administrators and the school psychologists/mental health professionals expressed some concern about this element of the intervention. The trauma narrative is an area where the implementer would need to work closely with the school to bolster buy-in through relationship building and psychoeducation.



Additionally, although not formally included, discussion of the narrative particularly around traumatic separation and traumatic grief is a form of in-vivo desensitization.

### **School-Based Stakeholder Participation: Teacher**

A primary goal of this research study was to explore the process of including teachers in the intervention process. Teacher involvement is often an oversight in the literature, but it is a necessary component when working in schools. Teacher involvement was expressed along a continuum that varied based on the level of intensity. Informed by Fitzgerald and Cohen (2012), the researcher created a menu of services related to teacher involvement in the intervention process. These services included: (a) consultation on a targeted intervention to limit top priority behaviors, (b) provision of psychoeducation on trauma exposure, (c) provision of relaxation skills training/information, (d) inclusion of teacher input in treatment planning, and (e) provision updates about student progress.

The teachers received information about the content of the intervention session, psychoeducation about general reactions to trauma exposure and trauma exposure types, and updates about how their student progressed through the intervention. The researcher also sought information from the teachers about the students social-emotional welling being and progress through the intervention (e.g., how they were doing in the classroom). The researcher, when possible, used this information to adjust the intervention content. For example, Carl's teacher expressed concern about his hyperactivity in the classroom. Therefore, the researcher emphasized the use of calming strategies for Carl throughout the intervention process and in the classroom.

The teachers' level of involvement largely depended on their initial interest in engaging in the process and their openness to acknowledging the impact of trauma exposure on the student and how it may affect the student in the classroom setting. Allison and Katie's teachers were initially highly interested in learning more about the impact of trauma exposure on students and how to support their students in the classroom. Therefore, the researcher provided the teachers education and resources about trauma-informed classrooms and recommendations about class-wide mindfulness and relaxation strategies that could be implemented in the classroom (O'Neill et al., 2010; Walkley & Cox, 2013). This allowed the researcher to engage in system-level change that may positively influence the entire classroom and additional students suffering from trauma exposure related symptomatology (Doll & Cummings, 2008; Forman, 2015).

Conversely, Carl's teacher was more reluctant to engage in the process and stated at the start of the intervention that the intervention would not help the student because it would not address his problem which was ADHD and lack of medication. The researcher remained supportive of the teacher and persistent. The researcher stopped into the teacher's classroom (timing was ideal because the teacher had a planning period) weekly to say hello. These informal check-ins proved to be invaluable. As the researcher built rapport with the teacher, the check-ins become more formal. The researcher provided psychoeducation on trauma exposure during these check-ins, and by the end of the intervention, the teacher reported she noticed that Carl was using coping strategies in the classroom when he became frustrated (i.e., using positive self-talk) This highlights the importance of formally including teachers in the implementation of TF-CBT, and supports the literature that suggests that teachers are especially important stakeholders in the

school setting because they may influence generalizability of intervention strategies to the classroom (Doll & Cummings, 2008; Forman, 2015).

Abbie's teacher (i.e., middle school teacher) was minimally involved in the intervention process. She was mostly uninvolved due to her limited exposure to the student due to the student having seven class periods and teachers throughout the day. It was challenging for both the researcher and the teacher to determine how the teacher could be more involved in the process, despite her limited interaction with the student. Despite the teacher's limited involvement, the teacher had an "aha moment" when realizing that the subjective response of the student determines if exposure to a potentially traumatic event is traumatic. The teacher had initially expressed that Abbie's traumatic event could not possibly be considered a trauma. Through the process of psychoeducation, provided by the researcher, the teacher came to understand the subjective experience of the student is key in determining whether or not an event is considered traumatic. This "aha moment" was significant because teacher's new understanding of trauma exposure could result in the teacher using a more trauma sensitive lens, thus influencing the system (Doll & Cummings, 2008; Forman, 2015).

### **School-Based Stakeholder Participation: School Psychologist/Mental Health Professional and Administrator**

Administrator involvement and buy-in were essential in the successful implementation of TF-CBT in the school setting. At each school, the administrator served as the gatekeeper to entrance into the school, and they helped set the tone that trauma-based interventions in the school setting are feasible and valuable. This is aligned with the literature that suggests that principals, "can have significant interest and influence on implementation because they are

ultimately responsible for meeting organizational goals and because they more control the organizational resource and reward system and other aspects of the organization's system" (Doll & Cummings, 2008; Forman, 2015, p. 87). Like teacher involvement, school administrator involvement rested on a continuum of level of intensity. At the smallest, most rural, primary school the school principal was the most involved in the process. This principal had a huge level of influence on the system and individuals within the system; therefore, it is aligned with implementation science literature in schools that she would be highly involved in the intervention process (Doll & Cummings, 2008; Forman, 2015). She provided pertinent information about the student throughout the intervention duration. She also assisted in providing logistical support. Additionally, she expressed recognition that given the rural environment, and the student's historical engagement in outside referrals, that the student would not have received the services if it was not provided in the school setting – and that the trauma-focused services were essential. In the upper elementary the principal was the least engaged in the process. He received potential for harm updates and served as a gatekeeper into the school. However, his lack of engagement was complemented by his school-based social worker's involvement in the process. In all of the cases the school-based mental health professional were an integral component of the implementation process. The intervention would not have been possible to implement without the key stakeholder support from the mental health professional from within the system, again highlighting the implementation of mental health interventions in the schools requires inclusion of key stakeholders, coupled with substantial buy-in from key stakeholders (Doll & Cummings, 2008; Forman, 2015).

Additionally, the researcher worked with the school staff in the building to receive consultation on how best to work with the families. The consultation was particularly important in working with families that were involved in custody disputes and helped to educate the researcher on some of the nuances of family dynamics and context. For example, Katie's parents were in an ongoing custody dispute. The school social worker notified the researcher of this contextual factor before the researcher engaged the family. The notification was helpful because the social worker was able to preemptively warn the researcher that Katie's father may want the researcher to write a letter to the court detailing his engagement in the TF-CBT process. The researcher was able to preemptively notify the parent that due to the nature of the research study this was not feasible. The researcher also used consultation with the school staff in compiling and analyzing baseline data/clinical interviews to help inform situations when parent involvement could be detrimental. For example, Allison expressed that her parent punished her for affective expression. Specifically, Allison reported when she made suicidal comments her mother grounded her and yelled at her. The researcher had to proceed mindfully and cautiously when determining how to best engage the parent in the therapeutic process and what information to disclose to the parent. For example, when disclosing to the parent that the student had made suicidal ideation comments, the researcher preemptively worked to help the parent cognitively reframe their response to the incident. The school social worker was key in providing information about the nuances of the family dynamics, thus alleviating potential pitfalls the researcher may have made.

**School-Based Stakeholder Participation: Parent**

Parent inclusion in the school setting can be particularly difficult (Langley, Nadeem, Kataoka, Stein, & Jaycox, 2010). Some TF-CBT research has included simultaneous parent and child individual session throughout the intervention (Cohen et al., 2004). Concurrent parent-child sessions are not particularly feasible in the school setting because the student is typically seen as the “client.” Although the intervention can be effective without parent participation, the author recommended inclusion of parents whenever possible (Cohen et al., 2017; Ford & Nangle, 2015; Unterhitzenberger et al., 2015). Therefore, this an area that the researcher committed a significant amount of resources and flexibility to engage parents in the process. The students’ parents had some level of involvement in the intervention process on a continuum of level of intensity. The parents received in-depth information about the content of the intervention and their child’s progress. The information was conveyed through phone calls and face-to-face conversations. Except for Allison’s parent the parents received direct psychoeducation about trauma, specifically what types of events can be potentially traumatic, and how trauma-related symptomatology was expressed by their child. This information was delivered through an individualized parent meeting or informal phone calls. There were several benefits to including parents in the process including the parents’ ability to immediately intervene on safety concern and enhance safety in the home, the parents’ ability to recognize and respond to their child’s trauma related triggers and reactions, and the parent’s ability to foster generalizability of coping strategies learned in the sessions to the home setting. The above findings highlight the importance of including parents when delivering interventions in the school setting. Not only do

parents have to provide consent for treatment, they can also reinforce generalizability of skills learned in intervention sessions (Forman, 2015).

By partnering with the families, the researcher served as a liaison between the family and the community-based resources, creating coordinated programming for the students (Duckwork et al., 2001). For example, Carl's parents had not followed through with previous referral suggestions from the school. The researcher suggested the family have a crisis team come to the family home to assess the student for recent homicidal comments and behavior. The family agreed to this service, and the crisis team offered a referral to an organization that would provide in-home counseling services to the family. The family was open to this arrangement. Although, the family's reason for change can only be hypothesized it is possible that the family needed services to come directly to them due to logistical constraints, and they may have been more open to services due to the recent services the student had received in the school – and their positive experience with the school-based services. Another family had also not followed through with outside referrals recommended by the school social worker prior to starting TF-CBT. Allison was at high risk, and she reported the least amount of improvement in her clinical symptoms post-intervention compared to baseline. The school social worker and classroom teacher were concerned that the student would not continue to get needed services during the summer months. During the post-assessment process, the researcher decided to have the student assessed for continued endorsement of suicidal ideation. The assessment did not result in a hospitalization, but the student was provided 6 weeks of follow-up care that could be provided to the student during the summer at the student's local library. These risk assessments also highlight how significant it is to assess for suicidality and homicide ideation in the school setting

when providing TF-CBT. In many ways, these assessments were mini-interventions in themselves that would not have otherwise been conducted unless the students had overtly displayed these symptoms or been engaged in TF-CBT or similar intervention. Additionally, the partnership created with the family, school, and research served to enhance utilization and access to community resources.

Several techniques were utilized by the researcher to enhance parent participation. The researcher rescheduled missed appointment, met parents after school hours, arranged alternative meeting locations, and used multiple forms of communication including face-to-face meetings, emails, letters, documents sent home, and phone calls. Despite significant efforts to reduce barriers to parental participation barriers were significant. For example, only Abbie shared her trauma narrative with their father. Additionally, the parents frequently missed appointment or did not return phone calls. This suggests this is an area for growth because the literature clearly suggests that parent participation can have a positive influence on outcomes associated with participation in mental health intervention in the schools (Buerkle, Whitehouse, & Christenson, 2009), yet is also aligned with the literature that barriers are common in this domain (Langley et al., 2010).

### **Trauma Exposure History and Trauma Narrative**

The students who participated in the intervention had experienced multiple trauma types, with an early onset. The early onset and prevalence of multiple types of trauma exposure is aligned with the literature (Finkelhor et al., 2015). All four of the students experienced traumatic separation as their primary traumatic event, with one student experiencing the traumatic separation in the form of traumatic grief. TF-CBT has been found to be an effective intervention



for traumatic grief (Cohen, Mannarino, & Staron, 2006). Although the trauma narrative can be excluded from the intervention with evidence that the intervention can be effective (Deblinger et al., 2011), the authors recommend the inclusion of this component (Cohen et al., 2017). Carl and Allison were somewhat resistant to engaging in the trauma narrative process. However, Katie and Abbie were eager to engage in the process, and all four of the students engaged in some form of the process successfully. Abbie and Carl self-reported that creating the trauma narrative was what they liked most about the intervention (i.e., despite Carl's initial reluctance in engaging in the process). The narratives included some form of the components: (a) introduction to self, (b) memories before the trauma, (c) trauma details, and (e) meaning-making. Interestingly, the students who struggled with the meaning-making portion of the narrative the most displayed the least reduction in trauma-related symptomatology post-intervention. Regarding logistics, in the school setting, the trauma narrative took a significant amount of time to complete and had to be completed for most students over several sessions. Time was a major hindrance to the completion of this component of the intervention. Despite the time constraint several of the students reported they felt the trauma narrative was what they liked most about the intervention. This is significant because the trauma narrative is frequently what school-based stakeholders are most resistant to regarding trauma-focused intervention implementation in the schools (Fitzgerald & Cohen, 2012), yet this data suggests that not only were the students satisfied with this component of the intervention, but it was feasible to implement in the school setting. Additionally, despite some hesitance by the school mental health professionals about the potential difficulty in engaging in the trauma narrative process in a school setting (e.g., would it cause so much distress that the student would be unable to return to their coursework), the

students were able to return with relative ease to their class post-sessions that included the trauma narrative component. This was primarily achieved using the Fear Thermometer to monitor arousal during the process and use of pre-taught relaxation techniques before, during, and after the engaging in the trauma narrative piece.

### **School-Based TF-CBT Outcomes**

Outcomes associated with TF-CBT have been explored exhaustively (Cary & McMillen, 2012; Dorsey et al., 2011; Goldbeck et al., 2016; Webb et al., 2014); however, they have sparsely explored in the school setting, except for one case study that examined TF-CBT and the specific trauma exposure of a motor vehicle accident (Stevens & Michael, 2014) and one study that examined TF-CBT delivery of telehealth delivered at a clinic and a school (Stewart et al., 2017). No study to date has explored outcomes associated with teacher participation in TF-CBT. Additionally, only a few studies have examined TF-CBT and academic outcomes, and none of these studies were conducted in the school setting (Feather & Ronan, 2009; Jaycox et al., 2010)

### **Pts Symptoms**

It is essential to highlight before the exploration of the outcomes that the TSCC-A included hyper-reporting and under-reporting validity scales which indicate that at baseline both Carl and Allison may have been hyper-reporting their symptoms. Moreover, post-intervention, Allison and Katie may have been hyper-reporting their symptoms. Post-intervention, Carl may have been under-reporting his symptoms. Although this scale is specific to the TSCC-A, it can be extrapolated that the students may have been hyper-reporting or under-reporting for the other measures they completed. Therefore, individual self-report findings should be interpreted with caution.

Carl, Katie, and Abbie self-reported via the UCLA PTSD-RI-5 a reduction in their overall PTSD Symptom Severity score. The reduction in pts symptoms is aligned with the literature and the expectation that most of the students would experience a reduction in overall PTSD symptoms severity (Cohen et al., 2004; Jensen et al., 2014; Scheeringa et al., 2011). Despite, the reduction in overall PTSD system severity among three of the four students, it is also important to examine clinical implications. Although a reduction in severity of PTSD symptoms is promising, three of the four students (i.e., Katie, Allison, and Abbie) still met diagnostic criteria for PTSD post-intervention according to the UCLA PTSD-RI-5. This speaks to the importance of examining the overall reduction in symptom severity scores, but also examining the clinical implication of the reduction (Jacobson & Truax, 1991). It is also significant that of the three students (i.e., Carl, Allison, and Katie) who met criteria for PTSD with a dissociative subtype only Allison continued to meet diagnostic criteria for this post-intervention. The reduction in dissociative symptoms is significant because the presence of dissociative symptoms can indicate chronic PTSD symptoms (Lynch et al., 2008).

### **Progress Monitoring: Daily Distress**

Katie's and Allison's percentage of non-overlapping data for daily distress suggest that the intervention was minimally effective in reducing their daily report of distress. Abbie's percentage of non-overlapping data for daily distress suggests that the intervention was moderately effective in reducing her daily distress. It was not necessarily expected that the progress monitoring for daily distress data would yield positive effect sizes because it is common for students to become more aroused during the narrative portion of the intervention (Cohen, Mannarino, & Deblinger, 2017). Additionally, there are several limitations with the measure

used to progress monitor daily change in symptom severity. This is discussed in-depth in the limitations section of this chapter.

### **Depression Symptoms**

Carl and Abbie experienced a reduction in his overall depression symptoms on the CDI 2. Allison's depression scores remained elevated post-intervention compared to baseline. Katie reported an increase in overall depression symptoms post-intervention compared to baseline. This was not expected because TF-CBT has shown strong evidence that suggests it is an effective intervention in reducing depression symptoms (Cohen & Mannarino, 1998b); however, in two RCT studies examining this outcome one study found a significant effect in depression symptom reduction and one study found no effect (Cohen et al., 2011; Jensen et al., 2013). Additionally, both Allison and Katie who had elevated depression symptoms post-intervention had clinical hyper-reporting validity scales on the TSCC-A, suggesting they may have been hyper-reporting their depression symptoms. Lastly, Katie expressed to the researcher before completing her post-intervention self-report measure for depression that she wanted to start taking depression medication because her mom takes medication for depression and it helps her (e.g., the student was aware that referral would be made post-intervention based on post-symptom severity scores).

### **Anxiety Symptoms**

Carl reported a reduction in anxiety symptoms post-intervention compared to baseline. Allison's self-report of anxiety symptoms increased post-intervention compared to baseline. Abbie also experienced an increase in anxiety symptoms post-intervention compared to baseline. Katie's anxiety symptoms on the SCARED increased post-intervention compared to baseline on

the SCARED. However, on the TSCC-A at baseline and post-intervention, her anxiety symptoms were in the normal range. It was expected that the students would experience a reduction in anxiety symptoms per previous empirical TF-CBT outcomes studies (Goldbeck et al., 2016; Mannarino et al., 2012); however, like with depression, in two RCTs, one study reported a significant reduction in anxiety symptoms post-intervention, while another study found no such effect (Cohen et al., 2011; Jensen et al., 2013). Additionally, Katie and Allison had Clinical hyper-reporting validity scale for their post-intervention TSCC-A results, suggesting they have been over-reporting their anxiety symptoms. Lastly, the trauma narrative component of the intervention can be temporarily arousing for the students. Due to the shorter duration of the intervention, the post-measures were administered 1-2 weeks after the students had completed their trauma narrative. Perhaps a greater reduction of symptoms may have been captured several weeks after the completion of the narrative.

### **Externalizing Symptoms**

It was expected that the students would experience a reduction in externalizing symptoms post-intervention compared to baseline (Cohen et al., 2004; O'Callaghan et al., 2013).

Interestingly, there was a difference in outcomes associated with externalizing symptoms by informant. Both Carl and Katie's teachers reported a reduction in select subscale externalizing symptom subscale score post-intervention compared to baseline.

Carl's teacher reported a significant reduction in his Attention Problems subscale score post-intervention compared to baseline. Katie's teacher also reported a decrease in her Rule-Breaking Behavior and Aggressive Behavior subscales scores post-intervention compared to baseline. However, Carl's father did not indicate a change in externalizing symptoms post-

intervention compared to baseline. This highlights the importance of obtaining outcome information from both parents and teachers when implementing TF-CBT in the school setting. Ultimately, use of multi-informant information in the school setting is contextually responsive to the student (Capella et al., 2008). This is also aligned with research that suggests teachers are better informants of externalizing behaviors of children than their parents (Stanger & Lewis, 1993). Perhaps teachers are more attuned to small shifts in externalizing behaviors among students than parents due to the demands of the classroom setting. Lastly, only two of the students' teachers or parents indicated behavior/externalizing symptom concerns. This is interesting because in the school setting students are typically referred for externalizing symptoms (Walker, Cheney, Stage, Blum, & Horner, 2005). This speaks to the importance of educating teachers about trauma exposure; thus, bolster referrals for students who are “silent sufferers.”

### **Academic Outcomes**

Two students' ELA grades/competencies improved post-intervention compared to baseline. Carl and Abbie's reading/writing grades/competency increased post-intervention compared to baseline. Abbie's percentage of non-overlapping data for her ELA grades suggests the intervention was minimally effective. Carl, Allison, and Abbie experienced improvements in their math grades/competencies post-intervention compared to baseline. Post-intervention compared to baseline, Carl experienced growth in several math areas from developing to mastery. Allison's and Abbie's percentage of non-overlapping data for their math grades suggests the intervention was moderately effective. Academic outcomes associated with participation in a mental health intervention are notoriously difficult to capture in the school

setting. Only two studies to date have examined TF-CBT and academic outcomes (Feather & Ronan, 2009; Jaycox et al., 2010), and neither of the studies reported there were any significant academic outcomes associated with participation in TF-CBT. Although, causation cannot be determined, it is promising that three of the four participants' classwork/homework grades or competencies increased post-intervention compared to baseline.

### **Summary of School-Based TF-CBT Outcomes**

The outcome findings suggest that that most of the students experienced a reduction in their overall PTSD symptom severity post-intervention compared to baseline. This reduction in pts symptoms is promising because this is the primary symptom-targeted by the intervention and is aligned with expected outcomes within the literature (Cohen et al., 2004; Jensen et al., 2014; Scheeringa et al., 2011).

However, for anxiety and depression symptoms similar findings were not found, which was not aligned with the expected outcomes associated with the literature (Cohen & Mannarino, 1998b; Goldbeck et al., 2016; Mannarino et al., 2012). However, not all studies report significant depression symptom (Cohen et al., 2011; Jensen et al., 2013) and anxiety symptom (Cohen et al., 2011; Jensen et al., 2013) outcomes. There may be several reasons why most of the student did not experience a reduction in their depression or anxiety symptoms. First, two of the students may have been hyper-reporting their post-intervention symptoms as evident by their Clinical TSCC-A hyper-reporting scales. Additionally, through anecdotal evidence when Katie was reporting her depressive symptoms, she repeatedly expressed that she had depression and was interested in taking medication. She was also aware that referrals would be made based on her post-intervention symptoms. Additionally, the post-measures were administered close to the

completion of the trauma narrative which may have accounted for an elevation in symptoms which may have decreased with some time (Cohen et al., 2017).

The duration of the intervention could have also been a factor. The eight sessions are on the lower end of the length that TF-CBT has been shown to be empirically effective (Deblinger, et al., 2011). Perhaps, with more sessions, the data would have reflected a decrease in trauma-related symptoms beyond PTSD. This speaks to the significance of considering duration when working in schools. For example, when factoring in time to build rapport and set-up logistics to implement a trauma-focused intervention in the school setting the spring semester is an ideal time to provide an evidence-based intervention; however, the implementer is then limited by the duration of one school semester. Time constraints were a continuous challenge that may have influenced outcome findings. Perhaps the implementer would be more readily able to implement the intervention earlier in the school year if the implementer was embedded in the school system or if they had laid down the groundwork for the intervention in the school year prior to implementation.

### **Social Validity of TF-CBT in the School Setting**

The data shows that three of the four students reported a reduction in their PTSD symptom severity scores and a decrease was not found among anxiety and depression symptoms. At face value, these outcomes could be viewed as discouraging. However, when examining school-based outcomes the context matters and “success” can and should be measured within the context of the setting. For example, are the students and teachers satisfied with the intervention? If so what clinical implication may that have? (Domitrovich & Greenberg, 2000).



**Student**

All but one of the students (i.e., Abbie) indicated that they strongly agreed or agreed that the intervention helped them to deal with the trauma/stress they had experienced. Additionally, all but one of the students (i.e., Abbie) indicated they strongly agreed that they would suggest this intervention to a friend with similar problems. These findings suggest that most of the students were satisfied with the intervention. Satisfaction with an intervention is a powerful indicator of the intervention's success and has been positively correlated with the perception that the clinician is warm and caring (Nabors & Prodente, 2002).

**Teacher**

The teacher participants reported they were either somewhat satisfied or satisfied with the: (a) limit of top priority behaviors, (a) provision of psychoeducation, (b) provision of relaxation strategies for the teacher to use in the classroom, (c) inclusion in the treatment planning, and (d) provision of treatment updates. These findings suggest that the teachers were generally satisfied with the intervention and the teacher component of the intervention. This is significant for several reasons. First, teachers are often a gatekeeper to students (Doll & Cummings, 2008; Forman, 2015). They spend the most amount of time with students throughout the school day; therefore, they are uniquely positioned to identify and refer students for intervention. If a teacher was satisfied with this intervention, they might be more likely to refer students with similar problems. Second, teachers can serve as a valuable support person throughout the process, and they can help facilitate generalization of the skills student have learned in the intervention sessions. If the teacher is overall satisfied with the intervention, they are more likely to support reinforcement of skills learned during the intervention sessions to the

classroom setting (Doll & Cummings, 2008; Forman, 2015). Despite these positive findings none of the teachers reported they were very satisfied with the various component of the teacher portion of the intervention. This finding suggests that there is significant room to grow in this area. Specifically, teachers expressed they would have liked to have been more involved in the process. Perhaps the implementer could work with the school psychologist/mental health professional to individually design a protocol to include teachers in the process based on the student and teacher's individual needs.

### **Overall Implications**

This study provides descriptive information about how TF-CBT can be implemented with fidelity in the school setting with a predesigned carefully thought-out protocol that is flexible and responsive to the school context. Additionally, this study highlights that the trauma narrative can be implemented in the school setting with fidelity and it may be one of the more favored components of the intervention among students. Additionally, outcomes associated with student participation in the school setting can be broadened to include areas beyond symptomatology and should include things like overall satisfaction in the intervention. Lastly, unlike in other settings where the client is the student, the school setting should include the school and relevant systems as the "client." Parent, teacher, and administrator participation play an invaluable role in the implementation of TF-CBT in schools. The key stakeholders serve as gate keeps, help to reinforce generalizability, and provide invaluable treatment input.

### **Limitations**

These findings are linked to the contextual circumstances of the cases. Therefore, the location (e.g., rural), age and gender of the students, type of trauma exposure and trauma history,

baseline symptom severity profile are all contextual factors that the reader should consider when extrapolating findings to applying them to their setting(s). However, despite this caveat, the study provides enough rich detail of the contextual factors that the reader should be able to apply these findings to their setting with the unique contextual factors in mind. Further, the case study outcomes cannot be attributed to the intervention (e.g., causality cannot be determined). For example, the three students' reduction in PTSD symptoms could be due to the phenomenon that with time there is usually a natural reduction in PTSD symptoms. However, the purpose of a case study is not to extrapolate probabilities, but to expand upon important contextual factors when implementing TF-CBT in the school setting. Specifically, this study expands upon knowledge about what school-based TF-CBT outcomes look like in the school setting, how TF-CBT can be implemented in the school setting, and how students and teachers perceive TF-CBT.

Progress monitoring tools were limited for several reasons. First, they were influenced by both the ceiling and floor effects. This factor impacted the progress monitoring data collected (i.e., grades and daily distress). This made it challenging to examine effect sizes. Ford and Nangle (2015) tailored their progress monitoring tool to the individual behaviors the student was working on which may be a better approach to collecting progress monitoring data when implementing TF-CBT. Second, finding a sensitive and easy to administer progress monitoring tool that could approximate for PTSD symptoms was challenging. The UCLA PTSD-RI-5 was too long and cumbersome to administer weekly, and data on test re-test reliability was not available. The Fear Thermometer was sufficiently easy (less than one minute) to complete. Despite ease of administration the measure was influenced by the floor effect, and the students were resistant to completing the measure at home (i.e., only one student consistently completed the measure at

home). Third, it would have been ideal to have more than three baseline points for daily distress. Lastly, it is important to determine that at both the baseline and intervention phases of the design the data is stable. If the data is variable, it is difficult to draw accurate conclusions. This was difficult to achieve in the school setting because the researcher has to balance the need for a stable baseline with the need of the school and student (e.g., a strong desire to implement the intervention as soon as possible) and the constraints of the school calendar (e.g., limited time to implement all 8 weeks of the intervention). Perhaps, if the research is more firmly embedded in the school system in which the study is being implemented this would be less of a barrier. Additionally, education with administrators about the importance of research protocols could be beneficial.

Lastly, the student and teacher measures were a self-report that was non-anonymous. Although, the teacher and students filled-out the measure when the researcher was not present, and they were encouraged to be honest and told there would be no negative consequences for their responses, it is possible that the respondents did not feel comfortable reporting negative information for fear of reprisal or fear of damaging the relationship they had with the researcher.

### **Future Directions**

This study suggests that TF-CBT can be successfully implemented in the school setting. Most of the participants experienced a decrease in pts symptoms post-intervention compared to baseline. Additionally, the teacher and student participants reported an overall satisfaction in the intervention. An obvious future direction is to conduct an RCT of TF-CBT in a school setting. An RCT could answer the question of what outcomes are associated with TF-CBT in the school setting. Although, this study suggests that TF-CBT is associated with positive outcomes in the

school setting an RTC would be able to show direct causality between outcomes and participation in TF-CBT.

This study was interested in examining not only what outcomes are associated with participation in TF-CBT in the school setting, but also how TF-CBT is implemented in the school setting. This research question could be explored through a mixed-methods approach. Future research studies could expand on this study by exploring perceptions of TF-CBT in the school setting among other key stakeholders (e.g., not just teacher and student perceptions) such as parent perception and administrator perception. These key stakeholders' perceptions are essential to understanding how TF-CBT is implemented in the school setting. Additionally, it is difficult to understand how TF-CBT is implemented in the school setting without examining the system in which TF-CBT is being implemented. Future studies should explore the unique aspect of implementing TF-CBT in the school setting by exploring the impact the intervention has on the system. For example, what changes happen at the classroom level because of working with teachers? What changes happen at the universal or school-wide level? This could be achieved through classroom-based and school-wide survey. Additionally, future studies could expand on this implementation science by looking at factors associated with uptake of TF-CBT in the school setting. For example, does TF-CBT implementation look similar in a rural school setting as opposed to an urban or suburban school setting?

Lastly, an area of interest that arose from this work was the idea of traumatic separation. All four of the cases, by chance, reported a traumatic separation/loss as their primary traumatic experience. This experience could have a disruption in attachment development or the attachment relationship. Although, TF-CBT has elements of addressing these concerns

(regulation) other approaches may also be warranted. For example, the attachment, regulation, and competency (ARC) framework could inform implementation in settings where attachment concerns are prevalent (Blaustein & Kinniburgh, 2010). There is also a plethora of research about TF-CBT in the foster care system (i.e., in which attachment concerns are prevalent) (Weiner et al., 2009). Perhaps, this literature could inform these specific attachment-based cases in the school setting.

APPENDIX A  
LIST OF MEASURES

Informant	Measure	Assesses	Timing
Parent	CBCL	Child internalizing and externalizing symptoms	Baseline and post-intervention
Teacher	TRF	Child internalizing and externalizing symptoms; school-based competencies	Baseline and post-intervention
	SDQ-T	Child behavior problems; externalizing symptoms	Baseline and post-intervention
	BIRS	Treatment acceptability/satisfaction	
	Teacher survey	Treatment satisfaction	Post-intervention
Child/Student Self-report	UCLA PTSD-RI-5	Posttraumatic stress symptoms and trauma history	Screening, post-intervention, weekly
	TSCC-A	Trauma specific symptoms	Baseline and post-intervention
	SCARED	Anxiety symptoms	Baseline and post-intervention
	CDI 2	Depression symptoms	Baseline and post-intervention
	Fear thermometer	Present level of fear	Daily
	Student survey	Treatment acceptability/satisfaction	Post-intervention
<i>Note.</i> CBCL = Child Behavior Checklist; TRF = Teacher Report Form; SDQ-T = Strengths and Difficulties Questionnaire; BIRS = Behavior Intervention Rating Scale; UCLA PTSD-RI-5 = UCLA Posttraumatic Stress Disorder Reaction Index for <i>DSM</i> 5; TSCC-A = Trauma Symptom Checklist for Children Alternative Version; SCARED = Screen for Child Anxiety Related Emotional Disorders; CDI 2 = Children's Depression Inventory 2.			



APPENDIX B  
FEAR THERMOMETER

# FEAR THERMOMETER 1

Name: \_\_\_\_\_

Really scared or upset

Pretty scared or upset

A little bit scared or upset

Not at all scared or upset

10

9

8

7

6

5

4

3

2

1

0



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APPENDIX C

STUDENT AND TEACHER FIDELITY TRACKING SHEETS

1

**Researcher Identifier:** \_\_\_\_ Record C (child) P (parent) J (joint) in box to indicate type of session and with whom PRACTICE component was implemented.

TF-CBT Treatment Component									
Session #:	1	2	3	4	5	6	7	8	
Date:	/	/	/	/	/	/	/	/	
<b>A:</b> Assessment measures administered and engagement methods used <b>GE:</b> Refer to trauma(s) during assessment and in relation to engagement									
<b>P:</b> Provide psychoeducation about trauma(s), reactions, reminders and treatment <b>GE:</b> Use proper words for trauma(s) and body parts; identify trauma reminders									
<b>P:</b> Provide parenting skills (praise, selective attention, active listening, time out, etc.) <b>GE:</b> Connect parental response and youth's symptoms/behaviors to trauma									
<b>R:</b> Provide individualized relaxation skills (e.g., focused breathing, mindfulness, etc.) <b>GE:</b> Connect use of relaxation skills to youth's trauma reminders									
<b>A:</b> Provide affect expression, identification and modulation skills <b>GE:</b> Connect use of skills to youth's trauma reminders									
<b>C:</b> Introduce cognitive triangle and optimistic thinking in general terms with children <b>GE:</b> Help PARENT use cognitive coping for trauma-related maladaptive thoughts									
<b>T:</b> Develop youth's trauma narrative (TN) in calibrated increments with thoughts, feelings, sensations, helpful and worst moments. Cognitively process maladaptive thoughts and end TN with positive lessons about self, others, parent(s) and future. Share TN with parent in individual session when clinically appropriate <b>GE:</b> Write, read and/or review TN									
<b>I:</b> <b>GE:</b> Plan in-vivo desensitization for generalized avoidance as needed									
<b>C:</b> Conjoint trauma-focused youth-parent sessions: youth and parent <a href="#">trauma education</a> , share TN when clinically appropriate, Q&A; improve communication <b>GE:</b> Share TN or address other trauma related issues in conjoint session									
<b>E:</b> Address personal safety skills and assertive communication; increase awareness of problem-solving skills and/or social skills; provide sex ed when appropriate <b>GE:</b> Address safety skills related to youth's trauma and future development									

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**Note:** GE = Gradual Exposure

[illegible]

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## VITA

Kelly Holmes was born in Grand Junction, Colorado and has lived in several states throughout the United States. Before attending Loyola University Chicago, she attended Tulane University in New Orleans, LA where she earned a Bachelor of Science in Psychology and Neuroscience in 2008 and Master's in Science in Psychology in 2010. In 2009 she served as an AmeriCorps VISTA with Tulane University.

While at Loyola Kelly served as a National Association in School Psychologists (NASP) Student Leader for three consecutive years. Additionally, as a National Trainer in PREPaRE, a school crisis prevention and intervention training, Kelly co-presented this curriculum to graduate students at Loyola University for three consecutive years. Kelly also worked as a grant funded graduate assistant with Loyola's Center for Science and Mathematics Education for several years. Lastly, Kelly completed an American Psychology Association (APA) accredited internship through the Illinois School Psychology Internship Consortium (ISPIC).

Currently, Kelly is a school psychologist for the Denver Public School system in Denver CO.

